



CURRICULUM



Continues professional developmental courses in Physical Therapy

SESSION 2015-2016

Mahboob School of Physical Therapy- Gandhara University Peshawar.

Introduction to Continues Professional Educational Courses Program in Physical Therapy

Mahboob School of Physical Therapy (MSP) started its DPT Program in () and realized the course deficiency of highly qualified Physical Therapist whom are going abroad. Thus, keeping the need of those Physical Therapist we are proud to announce the program of Requisite courses in Physical Therapy in the category of General education and in Professional education in November, 2014.

This program will provide physiotherapy graduates with advanced, specialized training in respective disciplines of physiotherapy and also enhance their General education . They will have a sound base of scientific knowledge and clinical skills required to critically evaluate and contribute to current research in the basic and applied sciences relevant to the domain of Physical Therapy.

This program has been designed to meet both national and international standards fulfilling criteria for further education and job opportunities.

Program Mission:

The Requisite Program is committed to providing an educational opportunity for its students, which is excellent, innovative and consistent with the mission of the MSP/GU. With an emphasis on problem-based, self-directed learning, and integrated academic and clinical education, the Program provides professional, inter-personal and inter-professional educational opportunities in partnership with the community and university at large.

Aim of the Course:

1. To upgrade graduates who are regarded as expert by physiotherapy colleagues, other health professionals and the wider community.
2. To produce leaders in the field of physiotherapy management for clients with Disorders related to Physical Therapy, who are able to provide and promote best quality services.
3. To encourage a willingness and ability to embark on lifelong continuing education to promote optimal care of patients.
4. To develop a highly proficient physiotherapist whose clinical skills and knowledge are exemplary.
5. To facilitate high levels of analytical and interpretative skills and abilities to integrate information in a holistic manner in the clinical problem solving process.
6. To enhance interpersonal and communicative skills and awareness of all aspects of a patients problem to encourage practice of high ethical and professional standards.
7. To further develop skills of critical evaluation of the literature and published research; and to encourage active participation in clinical outcome evaluation and research.

Program Out-Comes:

After completion of the program students will be able to;

Examine and provide Physical Therapy services to the patients having disorders related to Physical Therapy in their own discipline.

Function as a member of multidisciplinary rehabilitation team in disabled community.

Design education based and research oriented Physical Therapy practice.

Use communication skills verbally and in descriptive pattern to interact with patients and community.

Conduct their activities in a professional and ethical manner.

Develop lifelong learning and professional growth.

Describe problem in the Physical Therapy practice and understand their difficulties.

Design experiments, collect data, analyze and interpret results.

Course Title	Continues professional educational courses in Physical Therapy (GENERAL CATEGORY+ PROFESSIONAL CATAGORY):
Course Duration	Semester-based

Continues professional educational courses in physical therapy

(Professional category-):

Course code	Course Title	Credit Hours			Clock Hours	
		Theory	Practical / Labs.	Total	(Theory + Practical / Labs.)	Total
PT/GU-CPE#7	Clinical sciences interventions Examination and evaluation: (Marks distribution) 30% Discussion/ Presentation 20% Case study/Assignments 50% Examination	2	0	2	(2+0)	2
PT/GU-CPE#8	Data collection skill Examination and evaluation: (Marks distribution) 30% Discussion/ Presentation 20% Case study/Assignments 50% Examination	2	1	3	(2+2)	4
PT/GU-CPE#9	Role of PTA Examination and evaluation: (Marks distribution) 30% Discussion/ Presentation 20% Case study/Assignments 50% Examination	3	0	3	(3+0)	3
Total Credit Hours = 8						
Total Clock Hours = 9						

Data collection Skill : Course 1

Outlines:

Aerobic capacity

Respiratory system

Function of respiratory tract,

Respiratory and non-respiratory function of the lungs,

Mechanics of breathing.

Production & function of surfactant and compliance of lungs,

Protective reflexes.

Lung volumes and capacities including dead space,

Diffusion of gases across the alveolar membrane,

Relationship between ventilation and perfusion.

Mechanism of transport of oxygen and carbon dioxide in blood.

Nervous and chemical regulation of respiration,

Abnormal breathing,

Hypoxia, its causes and effects,

Cyanosis, its causes and effects

Respiration during exercise

Function of the lung

Structure of respiratory system

Mechanics of breathing

Pulmonary ventilation

Pulmonary volumes and capacities

Diffusion of gases

Blood flow to the lungs

Ventilation-perfusion relationships

O₂ and CO₂ transport in blood

Ventilation and acid base balance

Ventilatory and blood-gas responses to exercise

Control of ventilation

Circulatory responses to exercise :

Cardiovascular system

Heart and circulation

Function of cardiac muscle

Cardiac pacemaker and cardiac muscle contraction

Cardiac cycle

ECG: recording and interpretation

Common arrhythmias and its mechanism of development

Types of blood vessels and their function

Haemodynamics of blood flow (local control systemic circulation its regulation and control).

Peripheral resistance its regulation and effect on circulation

Arterial pulse

Blood pressure and its regulation

Cardiac output and its control

Heart sounds and murmurs Importance in circulation and control of venous return.

Coronary circulation

Splanchnic, pulmonary and cerebral circulation

Triple response and cutaneous circulation

Foetal circulation and circulatory changes at birth

Clinical Module:

1. Clinical significance of cardiac cycle, correlation of ECG and heart sounds to cardiac cycle
 2. Clinical significance of cardiac cycle, interpretation of ischemia and arrhythmias
 3. Effects of hypertension
 4. Clinical significance of heart sounds
 5. Effects of ischemia
 6. Shock
 - Organization of the circulatory system
 - Heart: myocardium and cardiac cycle
 - Cardiac output
 - Hemodynamics
 - Changes in oxygen delivery to muscle during exercise
 - Circulatory responses to exercise
 - Regulation of cardiovascular adjustments to exercise
1. Clinical importance of lung function tests
 2. Causes of abnormal ventilation and perfusion
 3. Effects on pneumothorax, pleural effusion, and pneumonia
 4. Respiratory failure
 5. Artificial respiration and uses & effects of O₂ therapy
 6. Clinical significance of hypoxia, cyanosis, and dyspnoea

Anthropometric Characteristic

Circumferential measurement
Volumetric measurement
Limb length discrepancy

Arousal, Mentation, and Cognition:

Sensation, sense organs / special organs
Perception and factors affecting it
Attention and concentration
Memory and its stages, types and methods to improve it
Types and theories of thinking
Cognition and levels of cognition
Problem solving and decision making strategies
Stages of sleep
Physiology of consciousness
Attend states of consciousness
Psychological influence on sleep and consciousness
Non-pharmacological methods of inducing sleep
Changes in consciousness

Pain: Concept of pain

Physiology of pain, psychosocial assessment and management of chronic /intractable atypical facial pain
Measure and characterize pain to include:
Pain, soreness, and nociception
Specific body parts

Recognize and characterize signs and symptoms of inflammation.
Drugs used to treat pain and inflammation
Opioid Analgesics
Nonsteroidal Anti-Inflammatory Drugs (NASID)
Pharmacologic Management of Rheumatoid Arthritis and Osteoarthritis
Patient-Controlled Analgesia

Clinical science intervention: Course 2

Outlines:

Wound management:

Wound care concepts
Quality of Life and Ethical Issues
Regulation and wound Care
Skin, an Essential Organ
Acute and Chronic Wound Healing
Wound assessment
Wound Bioburden
Wound Debridement
Wound Treatment Options
Nutrition and wound care
Seating, Positioning and support surfaces
Pain Management and wounds
Identifications of Precautions for dressing removal

Functional Training :Wheel Chair Management skill:

Perform gait, locomotion and balance tests including quantitative and qualitative measures such as:
Balance during functional activities with or without the use of assistive, adaptive, orthotic, protective, supportive, or prosthetic devices or equipment
Balance (dynamic and static) with or without the use of assistive, adaptive, orthotic, protective, supportive, or prosthetic devices or equipment
Gait and locomotion during functional activities with or without the use of assistive, adaptive, orthotic, protective, supportive, or prosthetic devices or equipment to include:
Bed mobility
Transfers (level surfaces and floor)*
Wheelchair management
Uneven surfaces
Safety during gait, locomotion, and balance
Perform gait assessment including step length, speed, characteristics of gait, and abnormal gait patterns.

Functional Training: Infection Control Procedure

Health protection:
Infection Control
Injury Prevention during Childhood
Injury prevention during Adolescence
Injury Prevention during Adulthood

Injury Prevention during Older Adulthood

Functional Training: Isolation techniques

Types of Isolation:

Strict isolation.

Contact isolation.

Respiratory isolation

Tuberculosis or acid-fast bacillus (AFB) isolation.

Enteric precautions

Drainage/secretion precautions

Functional Training: Sterile Techniques

Sterilization General Concepts:

This topic will provide you with the general concepts of sterilization with a foundation on which to build your knowledge of sterilization. It addresses general concepts that apply to all types of sterilization. It covers steam sterilization which is the most common method of sterilizing used in the MDRD. From this chapter you will learn the various requirements for this method of sterilization. It covers Ethylene oxide (EtO) gas which is a sterilant for heat and moisture sensitive medical devices. Alternative low temperature sterilization methods have been developed for special equipment and this chapter covers all being used in Pakistanis. It also covers monitoring of all processes which is performed to assure yourself and patients that processed products are actually sterile, the sterilization process must be continually monitored.

Physical agents and Mechanical modalities: Compression therapies

Compression:

Effects of External Compressions

Clinical indications for the Use of External Compression

Contraindications and Precautions of External Compression

Contraindications for the Use of Intermittent or Sequential Compression Pumps

Precautions for the Use of Intermittent or Sequential Compression Pumps

Adverse Effects of External Compression

Application Techniques

Compression garments: Skill Category Description of Minimum Skills

Vasopneumatic compression devices

Taping

Compression bandaging (excluding lymphedema)

Physical agents and Mechanical modalities: Traction

Traction

- a) Effects of spinal traction
- b) Clinical indications for the use of spinal traction
- c) Contraindications and precautions for spinal traction
- d) Adverse effects of spinal traction
- e) Application technique

Traction devices

- a) Intermittent
- b) Positional
- c) Sustained

Professional Category: Course 3

(Outlines).

COURSE TITLE: Introduction to PTA

OF CREDITS: 3

CATALOG DESCRIPTION: Introduction to the role of the PTA, PT, and other health care providers. Study of professional behaviors such as supporting the APTA, upholding ethical practices, abiding by applicable laws, maintaining patient confidentiality, demonstrating generic abilities, and understanding the APTA *Guide to Physical Therapist Practice*. Other topics include strategies to address personality types, learning styles, patient diversity, emotional responses, and activities of daily living. Introduction to information competencies, SOAP note documentation, and PTA MACS etc.

COMMON STUDENT LEARNING OUTCOMES:

The student will be able to:

LEARN (L) - Students will actively and independently acquire, apply and adapt skills and knowledge to develop expertise and a broader understanding of the world as lifelong learners.

THINK (T) - Students will think analytically and creatively to explore ideas, make connections, draw conclusions, and solve problems.

COMMUNICATE (C) - Students will exchange ideas and information with clarity and originality in multiple contexts.

INTEGRATE (I) - Students will demonstrate proficiency in the use of technologies in the broadest sense related to their field of study.

ACT (A) - Students will act purposefully, reflectively, and respectfully in diverse and complex environments.

GENERAL LEARNING OBJECTIVES

Upon successful completion of the course, the student will be able to:

1. Organize, write and present a research topic related to physical therapy.
2. Differentiate between the role of PTA, PT, and other health care providers.
3. Explain the importance of the American Physical Therapy Association (APTA).
4. Examine ethical issues related to physical therapy care.
5. Explore legal issues related to physical therapy care.
6. Recognize patient confidentiality issues related to physical therapy care.
7. Describe the effect of personality types and learning styles on physical therapy care.
8. Explain the effect of patient diversity on physical therapy care.
9. Report common emotional responses to particular medical conditions.
10. Explain activities of daily living.
11. Describe the use of the PTA MACS for clinical rotations.
12. Practice documentation using SOAP note format.
13. Practice generic abilities related to course content.
14. Describe basic concepts related to the APTA *Guide to Physical Therapist Practice*.

SPECIFIC LEARNING OBJECTIVES

Upon successful completion of the course, the student will be able to:

1. Organize, write and present a research topic related to physical therapy.
 - 1a. Develop strategies using informational competence to critique a variety of sources.
 - 1b. Review educational materials published by organizations focused on particular medical conditions if appropriate.
 - 1c. Write and share a 3-5 page paper on a research topic based on current literature with peers.
 - 1d. Select strategies to prepare and deliver a presentation.
 - 1e. Modify the presentation to accommodate different learning styles.
 - 1f. Present a research topic with a handout using software such as PowerPoint.
 - 1g. Complete an evaluation tool for feedback on the presentation.
2. Differentiate between the role of PTA, PT, and other health care providers.
 - 2a. Explain the role of the PTA in wellness promotion, injury prevention, and medical treatment.
 - 2b. Describe the variety of settings where physical therapy services are provided.
 - 2c. Differentiate between the PT, PTA, and PT Aide/Technician responsibilities.
 - 2d. Differentiate between various health care professionals such as recreational therapist, chiropractor, OT, COTA, SLP, RN, MD, PA, etc.
 - 2e. Recognize the multi-disciplinary team approach to health care.
3. Explain the importance of the American Physical Therapy Association (APTA).

- 3a. Review the history of the physical therapy profession.
- 3b. Participate in organizations and efforts that promote physical therapy such as the APTA.
- 3c. Explain Vision 20/20 and its effect on the physical therapy profession.
- 3d. Identify current issues affecting physical therapy care.
4. Examine ethical issues related to physical therapy care.
- 4a. Practice the APTA *Standards of Ethical Conduct for the PTA* and *The Guide for Conduct of the Physical Therapist Assistant*.
- 4b. Identify circumstances where ethical violations must be reported.
5. Explore legal issues related to physical therapy care.
- 5a. Discuss the rules and regulations governing physical therapy within the student's jurisdiction.
- 5b. Comply with the scope of practice for the PTA and PT.
- 5c. Explain the appropriate use of support personnel.
- 5d. Discuss the American with Disabilities Act (ADA).
- 5e. Differentiate basic concepts between Medicare & Medicaid.
- 5f. Describe the potential consequences of failing to obtain informed consent.
- 5g. Explain advance directives related to physical therapy.
6. Recognize patient confidentiality related to physical therapy care.
- 6a. Justify the importance of maintaining patient confidentiality.
- 6b. Practice the Health Insurance Portability and Accountability Act (HIPPA) requirements related to physical therapy care.
- 6c. Identify consequences of violating confidentiality.
7. Describe the effect of personality types and learning styles on physical therapy care.
- 7a. Describe the effect of different personality types and learning styles.
- 7b. Describe how oral and written comprehension levels affect physical therapy care.
- 7c. Identify strategies to support patient's participation in physical therapy care.
- 7d. Differentiate ways to encourage the patient to communicate questions/concerns.
- 7e. Clarify the concept of transfer of knowledge.
8. Explain the effect of patient diversity on physical therapy care.
- 8a. Demonstrate an understanding of patient diversity including age, gender, culture, religion, and socioeconomics.
- 8b. Explain norms for gender roles among various cultural groups.
- 8c. Justify methods to prevent judgmental or stereotypical behaviors.
- 8d. Account for modifications to physical therapy care to accommodate cultural differences.
9. Report common emotional responses to medical conditions.
- 9a. Describe the stages of grief.
- 9b. Identify common responses to grief or dying.
- 9c. Describe strategies to address conflicts within the family and community.
- 9d. Demonstrate ways to demonstrate empathy.
- 9e. Explain modifications to physical therapy care to accommodate the patient's emotional needs.
10. Explain activities of daily living.
- 10a. Propose types of activities of daily living.
11. Describe the use of the PTA MACS for clinical rotations.
- 11a. Identify the components of the PTA MACS necessary to complete clinical rotations.
12. Practice documentation using SOAP note format.
- 12a. Describe the four sections of a SOAP note.
- 12b. Demonstrate proper use of medical terminology and abbreviations.
- 12c. Compare methods of documentation including paper forms, electronic software, dictation, etc.
- 12d. Illustrate the importance of accurate documentation to facilitate reimbursement.
- 12e. Recognize that documentation may need to be adapted to address third party payers, institutional policies, or regulatory requirements.
- 12f. Identify strategies to ensure that documentation is completed in a timely manner.
- 12g. Document different procedural interventions providing information necessary for the physical therapist to evaluate the patient's progress.
- 12h. Recognize medical documentation and other documentation responsibilities.
- 12i. Depict instances and consequences of falsification of records.
13. Practice generic abilities related to course content. (Generic Abilities adapted from the Physical Therapy Program, University of Wisconsin-Madison, May et al. *Journal of Physical Therapy Education*, 9:1, Spring, 1995.)
- 13a. Commitment to Learning – Demonstrate the ability to self-assess, self-correct, and self-direct. Identify needs and sources of learning. Seek new knowledge and understanding.

13b. Interpersonal Skills – Demonstrate the ability to interact effectively with patients, families, colleagues, other health care professionals, and the community. Demonstrate the ability to effectively deal with cultural and ethnic diversity issues.

13c. Communication Skills – Demonstrate the ability to communicate effectively (i.e., speaking, body language, reading, writing, and listening) for a varied audiences and purposes.

13d. Effective Use of Time – Demonstrate the ability to obtain maximum benefit from a minimum investment of time and resources.

13e. Use of Constructive Feedback – Demonstrate the ability to identify sources and seek out feedback and to effectively use and provide feedback for improving personal interaction.