

Virginia Western Community College
PTH 227
Pathological Conditions

Prerequisites

PTH 131 and PTA program placement

Course Description

Presents specific pathologic conditions commonly seen in physical therapy. Emphasizes musculoskeletal and neurological system conditions, and all major body systems are represented.

Semester Credits: 3 Lecture Hours: 3 Lab: 0

Required Materials

1. *Pathology for the Physical Therapist Assistant, 2nd edition* by Catherine Goodman and Kenda Fuller; ISBN: 9780323395496
2. *Physical Rehabilitation, 7th edition* by Susan O'Sullivan, Thomas Schmitz, and George Fulk; ISBN: 978-0-8036- 6162-2
3. PhysioU: Pharmacology

Course Outcomes

1. Differentiate terminology regarding pathophysiology, including etiology, incidence, and prevalence.
2. Identify the etiology, signs, symptoms, treatment, and physical therapy implications for diseases and disorders of the following body systems across the lifespan:
 - a. Cardiovascular system
 - b. Endocrine and metabolic systems
 - c. Gastrointestinal system
 - d. Genital and reproductive systems
 - e. Hematologic system
 - f. Hepatic and biliary systems
 - g. Immune system
 - h. Integumentary system
 - i. Lymphatic system
 - j. Musculoskeletal system
 - k. Nervous system
 - l. Respiratory system
 - m. Renal and urologic systems
3. Identify the etiology, signs, symptoms, treatment, and physical therapy implications for diseases and disorders of conditions impacting multiple systems that occur across the lifespan.
4. Recognize common medical and surgical conditions that occur throughout the lifespan.

5. Recognize red flags for physical therapy intervention related to common pathologies impacting body systems across the lifespan.
6. Differentiate the types of dementia and memory loss disorders, including implications for patient communication and physical therapy treatment.
7. Differentiate anatomical and physiological changes that occur with aging.
8. Identify the anatomical and physiological changes that occur with pregnancy.
9. Recognize the role of physical therapy in the management of women's and men's health conditions impacting the genitoreproductive and urinary systems.
10. Differentiate between various types of incontinence and physical therapy interventions to address each type.
11. Outline the potential complications of diabetes mellitus on various body systems.
12. Recognize the role of physical therapy in the management of cancer-related weakness and disability.
13. Recognize factors, including exercise, that may impact the immune system.
14. Identify the impact of common cardiovascular medications on exercise response and activity tolerance.
15. Recognize signs and symptoms of respiratory distress.
16. Identify the physical therapy implications of genetic and developmental disorders.
17. Compare the signs and symptoms of central and peripheral nervous system pathologies across the lifespan.
18. Identify normal and abnormal lab values, including their clinical significance for physical therapy treatment.
19. Demonstrate accurate review of lab values, diagnostic tests, and imaging results from the medical record prior to determining appropriate physical therapy interventions from within the physical therapist's plan of care for a patient scenario.
20. Recognize basic pharmacokinetic principles.
21. Identify the indications, side effects, and physical therapy implications of common medications.
22. Outline the role of the gastrointestinal, hepatic, and renal systems in the absorption, distribution, metabolism, and excretion of medications.
23. Demonstrate appropriate modification of a patient treatment session based on the physical therapy plan of care to account for the impact of common medications.
24. Design a podcast episode utilizing evidence-based resources summarizing an assigned pathology impacting a major body system.
25. Discuss a case study, including the role of physical therapy and evidence-based treatment options, with other healthcare students.

Topical Description

This course will cover the following topics:

- The etiology, signs, symptoms, treatment, and physical therapy implications for diseases

and disorders of the following body systems across the lifespan:

- Cardiovascular system, Endocrine and metabolic systems, Gastrointestinal system, Genital and reproductive systems, Hematologic system, Hepatic and biliary systems, Immune system, Integumentary system, Lymphatic system. Musculoskeletal system, Nervous system, Respiratory system, Renal and urologic systems, Multisystem pathologies
- Types of dementia and memory loss disorders, including implications for patient communication and physical therapy treatment.
- Normal and abnormal lab values, including their clinical significance for physical therapy treatment.
- Review of lab values, diagnostic tests, and imaging results from the medical record prior to determining appropriate physical therapy interventions from within the physical therapist's plan of care for a patient scenario.
- Pharmokinetic principles, common medications impacting each system discussed in class, modification of treatments to consider the impact of medications.

Notes to Instructors

- This course should follow all PTA program policies.