

LABETTE COMMUNITY COLLEGE BRIEF SYLLABUS

SPECIAL NOTE:

This brief syllabus is not intended to be a legal contract. A full syllabus will be distributed to students at the first class session.

TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE (if any):

Please check with the LCC bookstore, <http://www.labette.edu/bookstore>, for the required texts for this class.

<u>COURSE NUMBER:</u>	PTA 201
<u>COURSE TITLE:</u>	Pathology for the PTA
<u>SEMESTER CREDIT HOURS:</u>	3
<u>DEPARTMENT:</u>	Health Science
<u>DIVISION:</u>	Career Technical Education
<u>PREREQUISITE:</u>	Admission to PTA Program
<u>REVISION DATE:</u>	August, 2018

COURSE DESCRIPTION:

This course is designed to familiarize the student with common pathologies seen in the realm of physical therapy. Emphasis will be not only on the illness and disease process but the associated disability. Precautions as they relate to rehabilitation will be emphasized.

COURSE OUTCOMES AND COMPETENCIES:

Students who successfully complete this course will be able to:

1. Identify disorders related to immunopathology, neoplasia and chromosome abnormalities and their implications for the PTA.
 - Describe the physiological mechanisms of the immune response
 - Identify the role vaccination plays in defense against infectious disease
 - State the causes, classification and medical treatment for neoplasias
 - Compare benign and malignant tumors
 - Determine the implications of neoplasms for physical therapy interventions
 - Identify various chromosome abnormalities and interventions
 - Identify the impact of antibiotic resistant infections and emerging infections on the future of health care
 - Determine the role of the physical therapist/physical therapist assistant in providing physical therapy interventions for patients with hereditary conditions

2. Discuss cellular and tissue responses to injury, inflammation and healing.

- Discuss the systemic effects of pathology
- Identify adverse drug reactions on multiple systems.
- List the possible effects of radiation therapy on various systems.
- Identify possible adverse effects of chemotherapy.
- Describe specific disorders affecting multiple systems.
- Discuss the implications for the PTA with fluid, acid-base and electrolyte imbalances.

3. Identify cardiopulmonary diseases and their implications for the PTA.

- Describe the normal components and physiology of the cardiovascular system
- List factors affecting normal cardiac output
- Determine normal and abnormal heart sounds
- Describe major disease processes of the cardiovascular system
- Compare physical therapy interventions for major diseases of the cardiovascular system
- Determine the contraindications and precautions for the physical therapist assistant when treating patients with cardiovascular diseases
- Describe the anatomy and physiology of the respiratory system
- Describe the normal function of the lungs
- Describe common respiratory pathologies seen in physical therapy
- Recognize the general signs and symptoms of respiratory diseases
- Analyze the appropriateness of exercise programs and treatment within the plan of care developed by the physical therapist for a patient with respiratory pathology
- Identify various tests that may be performed by the medical team for patients with respiratory pathology
- Determine the contraindications and precautions for physical therapy interventions for patients with major respiratory conditions

4. Identify and discuss degenerative joint diseases and bone pathologies, rheumatoid arthritis and related conditions and their implication for the physical therapist assistant.

- Describe the anatomy and physiology of bone and joints
- Describe the pathological mechanisms of osteoarthritis, osteoporosis, and other bone pathologies
- Describe the pathological mechanisms of tumors that affect the bone and cartilage
- Discuss the physical therapy interventions for patients with osteoarthritis, osteoporosis and other bone pathologies
- Determine the role of the physical therapist assistant in working with patients with osteoarthritis, osteoporosis, and other bone and joint pathologies
- Identify the contraindications and precautions for physical therapy interventions for patients with osteoarthritis, osteoporosis, and other bone and joint pathologies
- Describe the pathological mechanisms of rheumatoid arthritis, juvenile rheumatoid arthritis and Still's disease
- Describe the pathological mechanisms of ankylosing spondylitis, psoriatic arthritis, systemic lupus erythematosus, scleroderma, Sjögern's syndrome, and several of the more

common forms of rheumatoid-related inflammatory joint pathologies and connective tissue diseases

- Discuss the pathological mechanisms of muscular dystrophy, myasthenia gravis, and other muscular diseases
- Identify the differences between inflammatory arthritis and systemic connective tissue diseases
- Determine the physical therapy intervention for patients with the described rheumatoid conditions and muscular diseases
- Determine the contraindications, precautions, and special considerations for PT/PTA intervention for patients with rheumatoid arthritis, juvenile rheumatoid arthritis, and Still's disease, ankylosing spondylitis, psoriatic arthritis, systemic lupus erythematosus, scleroderma, and several more common forms of rheumatoid related inflammatory joint pathologies and connective tissue diseases

5. Discuss neurological disorders and the implications for the PTA.

- Review the anatomy and physiology of the central and peripheral nervous systems
- Describe CNS and PNS diseases and conditions
- Identify specific medical tests used for people with neurological conditions
- Determine specific physical therapy interventions used for people with neurological conditions

6. Discuss burns and skin conditions and their implications for the PTA.

- Describe the structure, anatomy, and physiology of skin
- Identify the mechanical mechanisms of burns
- Describe the pathological mechanisms of burns and other skin conditions
- Determine the classifications of burns
- Analyze the relevance of the Rule of Nines in the medical management of patients with burns
- Discuss the physical therapy intervention for patients with various skin conditions
- Determine the role of the physical therapist assistant in working with patients with burns and other skin conditions
- Discuss the contraindications, precautions, and special considerations for physical therapist/physical therapist assistant intervention for patients with burns and other skin conditions.
- Discuss the behavior of viable and nonviable tissue in the wound bed.

7. Discuss endocrine, metabolic, and nutritional disorders and their implications for the PTA.

- Review the anatomy and physiology of the endocrine system
- Describe the pathological mechanisms of endocrine diseases, metabolic diseases, and nutritional disorders
- Discuss the physical therapy interventions for patients with diabetes mellitus and other endocrine, metabolic, and nutritional disorders
- Apply contraindications, precautions, and special indications for physical therapist/physical therapist assistant interventions for patients with diabetes mellitus and other metabolic, endocrine, and nutritional disorders

8. Discuss infectious diseases and their implications for the PTA.

- Delineate the pathology and transmission of various types of hepatitis
- Describe the pathological mechanisms of various sexually transmitted diseases (STDs) including AIDS/HIV
- Discuss physical therapy interventions for people with AIDS/HIV
- Analyze the significance of the pathology and transmission of hepatitis to the PTA
- Describe the pathology of various vector-borne infectious diseases in the United States
- Describe the pathology of other infectious diseases and their relationship to health care employees
- Determine the role of physical therapy intervention in the management of people with infectious diseases
- Apply protective measures to prevent contraction and spread when managing individuals with infectious diseases

9. Discuss female and male reproductive system conditions and diseases of the digestive and urinary systems and their implications for the PTA.

- Review the anatomy and physiology of the digestive and urinary systems
- Discuss the pathological mechanisms of common diseases of the digestive and urinary systems
- Describe diagnostic tests for diseases of the digestive and urinary systems
- Determine physical therapy intervention in the management of people with digestive and urinary system diseases
- Analyze the contraindications, precautions and special interventions for patients with urinary and digestive system diseases
- Review the anatomy and physiology of the female and male reproductive systems
- Discuss the physiological changes of the female during pregnancy
- Describe the stages of labor and the common complications of labor and pregnancy
- Discuss the pathological mechanisms of common pregnancy related conditions, menopause, and female reproductive diseases
- Discuss pathological mechanisms of common male reproductive diseases
- Determine the role of physical therapy interventions for females and males with reproductive-related conditions and diseases
- Analyze contraindications and precautions relevant to physical therapist/physical therapist assistant intervention with female and male reproductive diseases

- Determine the contraindications and precautions for physical therapy interventions for women during pregnancy

10. Discuss common pathological conditions seen in the geriatric patient and their implications to the PTA.

- Define the following terms, *geriatrics, geriatric medicine, and gerontology*
- Name theories related to the aging process
- Determine the issues related to the association of aging and altered balance abilities
- Discuss major challenges faced by people as they age
- Consider the appropriate and inappropriate use of restraints and restraint alternatives
- List commonly occurring diagnoses in older people
- Determine the physical therapy interventions used for older people with specific diagnoses
- Apply ideas to enhance communication with older people with older people who are hearing-, sight-, or cognitively impaired
- Describe factors that increase the risk of malnutrition in the older population
- Apply some special concepts of physical therapy interventions for end-of-life care
- Determine venues for physical therapy interventions for the elderly people.