

# COURSE SYLLABUS

<b>LAST REVIEW</b>	Spring 2021
<b>COURSE TITLE</b>	Pathophysiology for Rehabilitation
<b>COURSE NUMBER</b>	PHTR 0220
<b>DIVISION</b>	Health Professions
<b>DEPARTMENT</b>	Physical Therapist Assistant
<b>CIP CODE</b>	51.0806
<b>CREDIT HOURS</b>	2
<b>CONTACT HOURS/WEEK</b>	Class: 2.5                      Lab: 5
<b>PREREQUISITES</b>	None
<b>COURSE PLACEMENT</b>	This course is part of a selective admission program. Students must be admitted to the Physical Therapist Assistant program to enroll in this course.

## COURSE DESCRIPTION

This course is designed to prepare the physical therapist assistant student to work with patients presenting with diagnoses commonly seen in the rehabilitation setting. Topics will include an understanding of pathology and medical intervention for a variety of body systems as well as the tests and measures and proper interventions utilized by the physical therapist assistant. Additionally, the student will complete multiple case studies related to data collection and treatment of the complex patient.

## PROGRAM ALIGNMENT

This course is part of a program aligned through the Kansas Board of Regents and Technical Education Authority. For more information, please visit:

[https://kansasregents.org/workforce\\_development/program-alignment](https://kansasregents.org/workforce_development/program-alignment)

## PROGRAM LEARNING OUTCOMES

1. Demonstrate competence in safely administering all tests and measures and interventions as outlined in the plan of care established by the physical therapist.
2. Communicate appropriately, both verbally and non-verbally, with patient/clients, families, physical therapy personnel and other healthcare team members.
3. Adhere to the legal, ethical and professional behavior guidelines established by the American Physical Therapist Association (APTA), the state licensure committee, and the facility of employment.
4. Utilize data collection, problem solving and critical thinking skills to identify the appropriateness of requested interventions.
5. Provide education to the patient/client, family members, physical therapy personnel, other healthcare team members and the community.

6. Identify cultural differences and their impact on the provision of physical therapy services.
7. Be involved in activities that promote life-long learning.
8. Participate in activities that promote the practice of physical therapy and the role of the physical therapist assistant (PTA).
9. Assist facility administration with outcome measurements, material management, reimbursement issues and other administrative roles deemed appropriate for the PTA.

## **TEXTBOOKS**

<http://kckccbookstore.com/>

## **METHODS OF INSTRUCTION**

A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

## **COURSE OUTLINE**

- I. Cardiovascular and Lymphatic Systems
  - A. Pathophysiology
  - B. Common Pathologies
  - C. Medical Management and Pharmacology
  - D. Physical Therapy Management
  
- II. Pulmonary System
  - A. Pathophysiology
  - B. Common Pathologies
  - C. Medical Management and Pharmacology
  - D. Physical Therapy Management
  
- III. Integumentary System
  - A. Pathophysiology
  - B. Common Pathologies
  - C. Medical Management and Pharmacology
  - D. Physical Therapy Management
  
- IV. Endocrine and Metabolic Systems
  - A. Pathophysiology
  - B. Common Pathologies
  - C. Medical Management and Pharmacology
  - D. Physical Therapy Management



- V. Immune System
  - A. Pathophysiology
  - B. Common Pathologies
  - C. Medical Management and Pharmacology
  - D. Physical Therapy Management
  
- VI. Gastrointestinal System
  - A. Pathophysiology
  - B. Common Pathologies
  - C. Medical Management and Pharmacology
  - D. Physical Therapy Management
  
- VII. Urologic, Renal, Hepatic and Biliary Systems
  - A. Pathophysiology
  - B. Common Pathologies
  - C. Medical Management
  - D. Physical Therapy Management
  
- VIII. Genital and Reproductive Systems
  - A. Pathophysiology
  - B. Common Pathologies
  - C. Medical Management
  - D. Physical Therapy Management
  
- IX. Oncology
  - A. Pathophysiology
  - B. Common Types
  - C. Medical Management and Pharmacology
  - D. Physical Therapy Management
  
- X. Acute Care Setting
  
- XI. Emergency Response
  
- XII. Psychosocial Issues

### **COURSE LEARNING OUTCOMES AND COMPETENCIES**

Upon successful completion of this course, the student will:

- A. Discuss the pathophysiologic effect of disease and/or dysfunction on various body symptoms.
  - 1. Compare and contrast the clinical presentation of cardiovascular, circulatory, and lymphatic disorders commonly encountered in the rehabilitation setting.
  - 2. Compare and contrast the clinical presentation of pulmonary disorders

commonly encountered in the rehabilitation setting.

3. Compare and contrast the clinical presentation of integumentary disorders, including burns and wounds, commonly encountered in the rehabilitation setting.
  4. Compare and contrast the clinical presentation of endocrine and metabolic disorders commonly encountered in the rehabilitation setting.
  5. Outline the clinical presentation of gastrointestinal disorders commonly encountered in the rehabilitation setting.
  6. Describe the clinical presentation of genital and reproductive disorders commonly encountered in the rehabilitation setting.
  7. Describe the clinical presentation of urologic, renal, hepatic and biliary disorders commonly encountered in the rehabilitation setting.
  8. Compare and contrast the clinical presentation of immune disorders commonly encountered in the rehabilitation setting.
  9. Distinguish the clinical presentation of cancer in various stages of the disease.
- B. Outline the common medical and pharmacological treatments used in the treatment of disorders and dysfunctions of various body symptoms.
10. Identify medical interventions used to treat disorders of various body systems commonly encountered in the rehabilitation setting.
  11. Examine the impact of medical intervention on the delivery of physical therapy services for disorders of various body systems commonly encountered in the rehabilitation setting.
  12. Compare and contrast common medications seen when working with patients in the rehabilitation setting.
  13. Internalize the importance of patient education related to improving safety with pharmacological intervention.
- C. Perform various physical therapy tests and measures utilized when working with a patient with a systemic dysfunction/disorder.
14. Conduct a subjective interview with the patient and/or family members to obtain information necessary to guide implementation of the PT plan of care.
  15. Review necessary health records prior to implementing the PT plan of care.
  16. Assess a patient for circulatory dysfunction.
  17. Observe a patient for signs of respiratory distress.
  18. Measure chest wall excursion and expansion.
  19. Observe thoracoabdominal movements and breathing patterns with activity.
  20. Compare and contrast a patient's vital sign readings when collected at rest and during activity completion.
  21. Describe the characteristics of a cough and sputum in a patient with pulmonary dysfunction.
  22. Perform circumferential measurements for a patient with edema.
  23. Recognize normal and abnormal skin changes in a patient with integumentary dysfunction.
  24. Distinguish between viable and non-viable tissue in the presence of a wound or burn.

25. Identify activities that aggravate or relieve a patient's edema, pain, dyspnea, skin integrity, or other systemic systems.
- D. Assimilate assessment results to implement a treatment session within the PT plan of care for a patient with disorders/dysfunctions of various body symptoms.
  26. Implement a complete treatment session within the PT plan for a patient with multi-system involvement.
  27. Outline modifications within the PT plan of care necessary to address issues that arise when working with a patient with disorders of various body systems.
  28. Instruct a patient in breathing, coughing and airway clearance techniques.
  29. Outline the use of modalities in the treatment of a patient with disorders of various body symptoms.
  30. Compare and contrast the use of compression in the treatment of acute edema, chronic edema, and lymphedema.
  31. Demonstrate the ability to apply various forms of compression for edema management.
  32. Outline the appropriate use of a given dressing or agent for an integumentary disorder.
  33. Observe the application and removal of dressings and agents in the presence of an integumentary disorder.
  34. Modify his/her communication to educate a variety of stakeholders, including patients, families, and other members of the interprofessional team.
- E. Demonstrate an understanding of the influence of psychosocial issues in the treatment of a variety of patients.
  35. Relate the clinical presentation of various psychological disorders to the modifications necessary during administration of PT services.
  36. Examine the impact psychosocial issues play in working with a patient.
  37. Summarize the effect of end of life issues on the provision of PT services.
  38. Discuss the effect of being diagnosed with a life-altering disease on both the individual and family members.
- F. Demonstrate the ability to modify physical therapy interventions for individuals treated within the acute care setting.
  39. Explain how treatment should be modified when a patient is monitored or treated with various equipment found only in the acute care setting.
  40. Value the role of various team members in the treatment of the multiple trauma or complex acute patient.
  41. Discuss the application of isolation and sterile techniques in a variety of patient situations.
- G. Identify emergency issues commonly seen in a rehabilitation setting.
  42. Create a handout used to educate other rehabilitation staff on the recognition and treatment of a potential emergency situation.
  43. Distinguish the appropriate response to various emergency situations present in

- the rehabilitation setting.
44. Outline the clinical presentation and management of a patient who is epileptic.
- H. Demonstrate an understanding of the role of the PTA as a professional in the rehabilitation team.
45. Defend the role of the PTA in the treatment of a patient with a systemic disorder/dysfunction.
46. Determine the interprofessional team member able to most appropriately address an issue that arises when working with a patient in the rehabilitation setting.
47. Act with consideration for the patient's values and preferences when implementing the PT plan of care.
48. Discuss when it is appropriate to communicate with the PT based on a patient's response to treatment or change in status.
49. Communicate with the PT when the direction to perform a skill is beyond that which is appropriate for the PTA.
50. Internalize the importance of ethical administrative practices by completing treatment documentation and billing for a patient scenario that meets all regulatory guidelines.
51. Utilize the International Classification of Functional, Disability and Health (ICF) to describe a patient's impairments, activity and participation limitations.
52. Compile a research review and assessment questionnaire to educate members of the interprofessional team on a topic related to administration of rehabilitation services.
53. Display a professional demeanor in all interactions in the classroom.
54. Conduct himself in a manner that demonstrates a commitment to legal, ethical and safe practice standards in all simulated patient treatment scenarios.

### **ASSESSMENT OF COURSE LEARNING OUTCOMES AND COMPETENCIES**

Student progress is evaluated through both formative and summative assessment methods. Specific details may be found in the instructor's course information document.

### **COLLEGE POLICIES AND PROCEDURES**

*Student Handbook*

<https://www.kckcc.edu/files/docs/student-resources/student-handbook-and-code-of-conduct.pdf>

*College Catalog*

<https://www.kckcc.edu/academics/catalog/index.html>

*College Policies and Statements*

<https://www.kckcc.edu/about/policies-statements/index.html>



*Accessibility and Accommodations*

<https://www.kckcc.edu/academics/resources/student-accessibility-support-services/index.html>.