

COURSE SYLLABUS

LAST REVIEW	Spring 2021
COURSE TITLE	Musculoskeletal: Spine and Special Topics
COURSE NUMBER	PHTR 0230
DIVISION	Health Professions
DEPARTMENT	Physical Therapist Assistant
CIP CODE	51.0806
CREDIT HOURS	5
CONTACT HOURS/WEEK	Class: 2.5 Lab: 5
PREREQUISITES	None
COURSE PLACEMENT	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 provides a link between the principles of biomechanics, musculoskeletal anatomy and neuromuscular physiology and their application to movement analysis for the head and trunk. This course covers the role of the physical therapist assistant in treating patients who have common musculoskeletal disorders of the head and trunk, amputations or chronic pain. The student will learn the theoretical foundation for intervention strategies, as well as components of assessment and will be introduced to the topics of aquatics, disability law, occupational health, and injury prevention.

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

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. Head & Trunk
 - A. Anatomy
 - B. Musculoskeletal Disorders
 - C. Physical Therapy Tests and Measures
 - D. Interventions

- II. Posture
 - A. Assessment
 - B. Interventions

- III. Amputations & Prosthetics
 - A. Types of Amputations
 - B. Interventions
 - C. Lower Extremity Prosthetic Devices

- IV. Gait Deviations
 - A. Recognition of Gait Deviations
 - B. Causes of Gait Deviations
 - C. Lower Extremity Orthotic Devices

- V. Chronic Pain
 - A. Physiology of Chronic Pain

- B. Common Disorders Associated with Chronic Pain
- C. Medical and Physical Therapy Management of Chronic Pain

VI. Aquatic Therapy

- A. Physiology
- B. Interventions

VII. Occupational Health

- A. Workers Compensation Law
- B. Job Descriptions and Worksite Evaluations
- C. Work Hardening/Work Conditioning

VIII. Wellness Programs and Complementary & Alternative Medicine

COURSE LEARNING OUTCOMES AND COMPETENCIES

Upon successful completion of this course, the student will:

- A. Describe the musculoskeletal anatomy of the head & trunk.
 - 1. Identify bony landmarks throughout the head & trunk.
 - 2. Identify the origin, insertion, action and innervations of the muscles that control the temporomandibular joint (TMJ), cervical spine & trunk.
 - 3. Analyze how anatomical structures affect joint mobility and stability.
 - 4. Differentiate normal from abnormal joint structure and mechanics.
- B. Discuss the effects of injury on the spine and TMJ.
 - 5. List mechanisms of injury for musculoskeletal disorders of the spine and TMJ.
 - 6. Identify the specific tissues involved in various musculoskeletal disorders of the spine and TMJ.
 - 7. Differentiate expected from unexpected signs, symptoms and functional deficits for various musculoskeletal disorders of the spine and TMJ.
- C. Perform various physical therapy tests and measures of the spine and TMJ.
 - 8. Perform sensory testing to assess the dermatomes of the extremities.
 - 9. Perform range of motion testing for the TMJ and spine.
 - 10. Perform reflex testing of the extremities.
 - 11. Perform manual muscle testing to assess the myotomes of the extremities and to test the muscles of the trunk & spine.
 - 12. Monitor changes in thoracoabdominal movement.
 - 13. Judge when changes in the patient's status should be reported to the supervising physical therapist.
 - 14. Accurately document the results of various tests and measures.

- D. Perform various physical therapy interventions for the treatment of musculoskeletal disorders of the spine and TMJ.
 - 15. Implement exercise programs that follow the plan of care for musculoskeletal disorders of the spine and TMJ.
 - 16. Demonstrate the proper use of traction of the spine.

17. Identify common medical and physical therapy interventions for musculoskeletal disorders of the spine & TMJ.
 18. Provide appropriate patient education based upon the needs of the patient.
 19. Assess the appropriateness of physical therapy interventions based on the type of musculoskeletal disorder and the stage of healing.
 20. Respond to an individual patient's needs by adjusting interventions within the plan of care created by the physical therapist.
 21. Discuss the need for changes to the plan of care with the supervising physical therapist.
 22. Accurately document physical therapy interventions.
- E. Recognize postural deviations and relate them to common causes.
23. Perform a postural assessment of a classmate.
 24. Examine the relationship between postural deviations and common causes.
- F. Understand the role of physical therapy in the treatment of patients with an amputation.
25. Describe various levels of lower extremity amputation.
 26. Compare and contrast different methods of controlling postoperative edema following amputation.
 27. Identify common medical and physical therapy interventions for patients with a LE amputation.
 28. Demonstrate proper methods of residual limb bandaging.
- G. Perform a gait assessment for patients with a lower limb prosthesis.
29. Identify the components of a lower limb prosthesis and their purpose.
 30. Identify various lower extremity orthotic devices and their purpose.
 31. Discuss proper care for and safety with use of orthotic and prosthetic devices.
 32. Identify common gait deviations.
 33. Examine the relationship between gait deviations and common causes.
- H. Understand the role of physical therapy in managing chronic pain.
34. Describe common physical therapy diagnoses related to chronic pain.
 35. Demonstrate an appreciation of the psychological and behavioral factors related to chronic pain by modifying communication and interventions appropriately.
 36. Identify common medical and physical therapy interventions for the management of chronic pain.
- I. Understand the role of physical therapy in an occupational health setting.
37. Identify terminology unique to the occupational health setting.
 38. Propose workstation modifications to reduce injury risk factors.
- J. Apply the principles of aquatic therapy.
39. Explain the basic principles of aquatic therapy, including the physics of water.

40. Select pool exercises that are appropriate for the specific needs of a patient.
- K. Discuss the role of wellness programs and complementary and alternative therapies in physical therapy.
41. Apply the concepts of behavioral change theories to wellness programs.
42. Appraise the value of complementary and alternative therapies based upon available evidence.
- L. Demonstrate appropriate interpersonal skills when interacting with others.
43. Display a professional demeanor during all interactions.
44. Demonstrate professional behavior that reflects practice standards that are legal, ethical and safe.
45. Display the value of communication by interacting appropriately both verbally and nonverbally during laboratory practicals.
46. Display concern for patient comfort by using appropriate positioning and handling techniques during laboratory practicals.

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>.