COURSE DESCRIPTION:
This course provides a link between the principles of biomechanics, musculoskeletal and neuromuscular anatomy/physiology and their application to movement analysis for the upper extremity. This course also covers the role of the physical therapist assistant in the management of common musculoskeletal disorders of the upper extremity, including the theoretical foundation for assessments and intervention strategies. Students will also learn the pathophysiology of and therapeutic interventions for various types of arthritis as well as pharmacology related to the musculoskeletal system.

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, and panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.
COURSE OUTLINE:
I. Tests and Measures of the Upper Extremity
   A. Manual Muscle Testing
   B. Goniometric Measurements
   C. Sensory Testing
   D. Motor Testing

II. Shoulder Complex
   A. Anatomy
   B. Pathology
   C. Orthopedic tests
   D. Physical therapy tests and measures
   E. Physical therapy interventions

III. Elbow
   A. Anatomy
   B. Pathology
   C. Orthopedic tests
   D. Physical therapy tests and measures
   E. Physical therapy interventions

IV. Wrist and Hand
   A. Anatomy
   B. Pathology
   C. Orthopedic tests
   D. Physical therapy tests and measures
   E. Physical therapy interventions

V. Arthritis
   A. Pathology
   B. Appropriate tests and measures
   C. Physical therapy interventions

VI. Pharmacological interventions for musculoskeletal disorders

EXPECTED LEARNER OUTCOMES
Upon successful completion of the course, on written and/or practical examination:
   A. The student will describe the anatomy of the upper extremity.
   B. The student will discuss the effects of injury on the upper extremity.
   C. The student will perform various tests and measures for the upper extremity.
   D. The student will utilize various physical therapy interventions for the treatment of upper extremity musculoskeletal disorders.
   E. The student will understand various forms of arthritis and the role of the PTA in disease management.
   F. The student will be familiar with common pharmacological agents used in the treatment of patients with musculoskeletal disorders.
   G. The student will demonstrate clinical problem-solving skills.
COURSE COMPETENCIES

The student will describe the anatomy of the upper extremity.

1. The student will identify bony landmarks in the upper extremity.
2. The student will describe the structure of all of the joints in the upper extremity.
3. The student will locate the attachment sites for all of the muscles in the upper extremity.
4. The student will list the actions of all of the muscles in the upper extremity.
5. The student will identify the innervations of all of the muscles in the upper extremity.

The student will discuss the effects of injury on the upper extremity.

6. The student will list common mechanisms of injury for various upper extremity musculoskeletal disorders.
7. The student will identify the specific tissues involved for various upper extremity musculoskeletal disorders.
8. The student will relate various upper extremity musculoskeletal disorders to expected signs, symptoms and functional deficits.

The student will perform various tests and measures for the upper extremity.

9. The student will perform sensory testing of the upper extremity.
10. The student will perform range of motion testing for joints throughout the upper extremity.
11. The student will perform manual muscle testing for muscles throughout the upper extremity.
12. The student will adapt testing procedures in response to substitution patterns.
13. The student will accurately document the results of various tests and measures for the upper extremity.
14. The student will demonstrate understanding of the common special tests used in the evaluation of upper extremity musculoskeletal disorders.
15. The student will demonstrate clear verbal communication when interacting with patients.

The student will utilize various physical therapy interventions for the treatment of upper extremity musculoskeletal disorders.

16. The student will implement exercise programs that follow the plan of care for various upper extremity musculoskeletal disorders.
17. The student will assess the appropriateness of treatment interventions based on the type of musculoskeletal disorder and the stage of healing.
18. The student will discuss common medical and physical therapy interventions for various upper extremity musculoskeletal disorders.
19. The student will demonstrate the use of therapeutic modalities for the treatment of upper extremity musculoskeletal disorders.
20. The student will discuss the use of joint mobilization, myofascial release, and trigger point release for treating upper extremity musculoskeletal disorders.
21. The student will accurately document physical therapy interventions.
22. The student will demonstrate concern for patient comfort by using proper positioning and handling techniques during laboratory practicals.

The student will understand various forms of arthritis and the role of the PTA in disease management.

23. The student will discuss the types of arthritis affecting the musculoskeletal system.
24. The student will discuss the medical management of various forms of arthritis.
25. The student will associate medications with their action and most appropriate use in patients with arthritis.
26. The student will discuss the role of physical therapy in the management of arthritis conditions.
The student will be familiar with common pharmacological agents used in the treatment of patients with musculoskeletal disorders.

27. The student will recognize common pharmacological agents used in the treatment of patients with musculoskeletal disorders.
28. The student will list the desired effects of these medications.
29. The student will recognize possible unwanted side effects of these medications.

The student will demonstrate clinical problem-solving skills.

30. The student will assess the need to modify an intervention based on the patient’s response.
31. The student will modify a therapeutic exercise program based on the needs of the patient.
32. The student will recognize signs and symptoms of complications during the recovery for various upper extremity musculoskeletal disorders.
33. The student will incorporate the use of evidence to make clinical decisions for a case study.
34. The student will communicate with others in an effective, appropriate, and capable manner.
35. The student will discuss conduct that reflects a commitment to meet the expectations of members of society receiving health care services.
36. The student will discuss conduct that reflects a commitment to meet the expectations of members of the profession of physical therapy.
37. The student will discuss conduct that reflects practice standards that are legal, ethical and safe.
38. The student will demonstrate the ability to adjust interventions within the plan of care created by the PT in response to the patient’s clinical indications and report this to the supervising PT.
39. The student will justify when interventions should not be provided due to changes in the patient’s status and report this to the supervising PT.
40. The student will demonstrate the ability to report any changes in the patient’s status to the supervising physical therapist.
41. The student will recognize when the direction to perform an intervention is beyond that which is appropriate for the PTA to do and initiates clarification with the PT.
42. The student will demonstrate the ability to provide appropriate patient education based on the plan of care.
43. The student will demonstrate the ability to provide patient-related instruction to patients, family members and caregivers to achieve outcomes based on the plan of care established by the PT.
44. The student will demonstrate appropriate documentation skills that meet the requirements established by the profession, payers, and legal systems.
45. The student will internalize the importance of reading healthcare literature.
46. The student will internalize the importance of interacting with other members of the health care team in patient-care and non-patient care activities.

ASSESSMENT OF LEARNER OUTCOMES:
Assessment methods include, but may not be limited to: written examinations, lab practicals, homework, and observation of professional behavior.

SPECIAL NOTES:
This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student’s progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

Kansas City Kansas Community College is committed to an appreciation of diversity with respect for the differences among the diverse groups comprising our students, faculty, and staff that is free of bigotry.
and discrimination. Kansas City Kansas Community College is committed to providing a multicultural education and environment that reflects and respects diversity and that seeks to increase understanding.

Kansas City Kansas Community College offers equal educational opportunity to all students as well as serving as an equal opportunity employer for all personnel. Various laws, including Title IX of the Educational Amendments of 1972, require the college’s policy on non-discrimination be administered without regard to race, color, age, sex, religion, national origin, physical handicap, or veteran status and that such policy be made known.

Kansas City Kansas Community College complies with the Americans with Disabilities Act. If you need accommodations due to a documented disability, please contact the Director of the Academic Resource Center, in Rm. 3354 or call at: 288-7670.