KIN A272: MOVEMENT ANALYSIS

Item	Value
Curriculum Committee Approval Date	11/04/2021
Top Code	083520 - Fitness Trainer
Units	3 Total Units
Hours	54 Total Hours (Lecture Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)
Associate Arts Local General Education (GE)	• OC Physical/Biological Sci - AA (OB)
Associate Science Local General Education (GE)	• OCC Physical/Biological Sci-AS (OSB)

Course Description

Introduction to the musculo-skeletal system and its function in human movement. Analysis of movements in sport skills and the muscles and bones involved. Transfer Credit: CSU; UC: Credit Limitation: Any or all of these HLED, KIN, PE Theory courses combined: maximum credit, 8 units.

Course Level Student Learning Outcome(s)

1. Identify and describe movements and attachment sites of major muscle groups within the body.
2. Discuss and describe the various joint structures of the body.
3. Summarize the process of muscular contraction.
4. Analyze and employ human physical performance through kinesiological knowledge.

Course Objectives

- 1. Identify major joint movements, planes of movement, and selected anatomical landmarks.
- 2. Describe aggregated muscle action.
- 3. Demonstrate the movements of the lower limbs and pelvic girdle.
- 4. Demonstrate the movements of the spinal column and rib cage.
- 5. Demonstrate the movements of the upper limb and the shoulder girdle.
- 6. Identify the anti-gravity musculature.
- 7. Use the basic skill analysis utilizing kinesiological knowledge to improve human physical performance.
- 8. Discuss the Serape Effect.
- 9. Describe the muscle contraction process.
- 10. Discuss muscle structure and muscle fiber patterns.
- 11. Review neuromuscular actions.

Lecture Content

Terminology Planes of movement Arthrology Aggregate Muscle Action Muscle properties, shape, and structure Muscle Contraction Theory Red vs. White muscle fiber characteristics Anti-gravity musculature Muscle actions and attachments

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- DE Online Lecture (02X)

Instructional Techniques

Lectures, various handouts, and teaching aids.

Reading Assignments

Students will spend approximately 4 hours a week reading from the text book and articles from peer reviewed journals and research articles

Writing Assignments

Students will spend approximately 1 – 2 hours per week be required to complete written assignments

Out-of-class Assignments

Students will spend approximately 1 – 2 hours a week completing individual and group written assignments; homework assignments to emphasis course topics.

Demonstration of Critical Thinking

Essay and short answer tests, muscle identification tests, and workbook exercise assignments.

Required Writing, Problem Solving, Skills Demonstration

Students will complete unit assignments in anatomical workbook.

Eligible Disciplines

Kinesiology: Masters degree in kinesiology, physical education, exercise science, education with an emphasis in physical education, kinesiology, physiology of exercise, or adaptive physical education OR Bachelors degree in any of the above AND Masters degree in any life science, dance physiology, health education, recreation administration or physical therapy OR the equivalent. Physical education: Masters degree in physical education, exercise science, education with an emphasis in physical education, kinesiology, physiology of exercise, or adaptive physical education, OR bachelors degree in any of the above AND masters degree in any life science, dance, physiology, health education, recreation administration, or physical therapy OR the equivalent. Masters degree required.

Other Resources

1. Selected handout material to be provided and distributed by instructor.