STATE UNIVERSITY OF NEW YORK
COLLEGE OF TECHNOLOGY
CANTON, NEW YORK

MASTER SYLLABUS

COURSE NUMBER – COURSE NAME
PHTA 102 - Kinesiology

Clinical Kinesiology

Created by: Jennifer McDonald
Updated by: Jennifer McDonald

School of Science, Health, and Criminal Justice

Department: Physical Therapist Assistant

Semester/Year: Fall 2019
A. **TITLE:** Clinical Kinesiology

B. **COURSE NUMBER:** PHTA 102

C. **CREDIT HOURS:** (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity)

- Credit Hours: 3
- Lecture Hours: 2 per week
- Lab Hours: 2 per week
- Other: per week

Course Length: 15 Weeks

D. **WRITING INTENSIVE COURSE:** Yes ☐ No ☒

E. **GER CATEGORY:** None: ☒ Yes: GER
   *If course satisfies more than one: GER*

F. **SEMESTER(S) OFFERED:** Fall ☐ Spring ☒ Fall & Spring ☐

G. **COURSE DESCRIPTION:**

In this course, students study aspects of human motion beginning with the structure and functions of the skeletal, muscular, articular, and nervous systems, as well as concepts of arthrokinematics and biomechanics. The course focuses on application of knowledge of origins, insertions, actions and innervations of extremity and trunk musculature and palpable surfaces of the same as they relate to functional human movement. Students will apply this knowledge to analysis of the gait cycle and posture.

H. **PRE-REQUISITES:** None ☐ Yes ☒ If yes, list below:

   Grade of C or better in BIOL 217

   **CO-REQUISITES:** None ☒ Yes ☐ If yes, list below:
I. **STUDENT LEARNING OUTCOMES:** *(see key below)*

By the end of this course, the student will be able to:

<table>
<thead>
<tr>
<th>Course Student Learning Outcome [SLO]</th>
<th>Program Student Learning Outcome [PSLO]</th>
<th>GER [If Applicable]</th>
<th>ISLO &amp; SUBSETS</th>
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</thead>
<tbody>
<tr>
<td>1. Describe kinesiological principles as they apply to the each of the following:</td>
<td>6,7</td>
<td>5-Ind, Prof, Disc, Know Skills None</td>
<td>ISLO Subsets</td>
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<tr>
<td>a. Skeletal system</td>
<td>ISLO ISLO</td>
<td>Subsets Subsets</td>
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<tr>
<td>b. Articular system</td>
<td>ISLO ISLO</td>
<td>Subsets Subsets</td>
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<td>c. Arthrokinematics</td>
<td>ISLO ISLO</td>
<td>Subsets Subsets</td>
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<td>d. Muscular System</td>
<td>ISLO ISLO</td>
<td>Subsets Subsets</td>
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<td>e. Nervous System</td>
<td>ISLO ISLO</td>
<td>Subsets Subsets</td>
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<td>f. Biomechanics</td>
<td>ISLO ISLO</td>
<td>Subsets Subsets</td>
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<tr>
<td>Identify the origins, insertions, innervations, and actions of extremity and trunk musculature</td>
<td>6,7</td>
<td>5-Ind, Prof, Disc, Know Skills None</td>
<td>ISLO Subsets</td>
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<tr>
<td>Correlate gross anatomical muscle and bony structures to surface anatomy</td>
<td>6,7</td>
<td>5-Ind, Prof, Disc, Know Skills None</td>
<td>ISLO Subsets</td>
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<td>Describe functional movement patterns throughout the body as related to joint motion and muscle activity.</td>
<td>6,7</td>
<td>5-Ind, Prof, Disc, Know Skills None</td>
<td>ISLO Subsets</td>
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<td>Describe components of the gait cycle including joint motions and muscle actions.</td>
<td>6,7</td>
<td>5-Ind, Prof, Disc, Know Skills None</td>
<td>ISLO Subsets</td>
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<tr>
<td>Describe kinesiological concepts of normal posture in a variety of positions.</td>
<td>6,7</td>
<td>5-Ind, Prof, Disc, Know Skills None</td>
<td>ISLO Subsets</td>
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<td>KEY</td>
<td>Institutional Student Learning Outcomes [ISLO 1 – 5]</td>
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<td>ISLO #</td>
<td>ISLO &amp; Subsets</td>
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<tr>
<td>1</td>
<td>Communication Skills</td>
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<td>Oral [O], Written [W]</td>
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<td>2</td>
<td>Critical Thinking</td>
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<td>Critical Analysis [CA], Inquiry &amp; Analysis [IA], Problem Solving [PS]</td>
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<td>3</td>
<td>Foundational Skills</td>
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<td>Information Management [IM], Quantitative Lit./Reasoning [QTR]</td>
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<td>Social Responsibility</td>
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<td>Ethical Reasoning [ER], Global Learning [GL], Intercultural Knowledge [IK], Teamwork [T]</td>
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<td>5</td>
<td>Industry, Professional, Discipline Specific Knowledge and Skills</td>
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*Include program objectives if applicable. Please consult with Program Coordinator*
J. **APPLIED LEARNING COMPONENT:**  Yes ☐ No ☐

If YES, select one or more of the following categories:

- ☒ Classroom/Lab
- ☐ Internship
- ☐ Clinical Placement
- ☐ Practicum
- ☐ Service Learning
- ☐ Community Service
- ☐ Civic Engagement
- ☐ Creative Works/Senior Project
- ☐ Research
- ☐ Entrepreneurship
  (program, class, project)

K. **TEXTS:**


L. **REFERENCES:**

M. **EQUIPMENT:** None ☐ Needed: Physical Therapy Lab Equipment & Supplies

N. **GRADING METHOD:** A-F as per PTA program standards

The grading scale for the Physical Therapist Assistant program is as follows:

- A = 90-100
- B+ = 85-89
- B = 80-84
- C+ = 75-79
- C = 70-74
- D+ = 65-69
- D = 60-64
- F = below 60

O. **SUGGESTED MEASUREMENT CRITERIA/METHODS:**

Quizzes, Assignments, Unit Exams, Final Exam

P. **DETAILED COURSE OUTLINE:**

**Introduction to Kinesiology**
- Basic Information
- Skeletal System
- Articular System
- Arthrokinematics
- Muscular System
- Nervous System
- Circulatory System
- Biomechanics

**II. Lower Extremity Functional Anatomy and Movement**
a. Hip
b. Knee
c. Ankle/Foot

III. Upper Extremity Functional Anatomy and Movement
a. Shoulder Girdle
b. Shoulder Joint
c. Elbow/Forearm
d. Wrist/Hand

IV. Neck and Trunk Functional Anatomy and Movement
a. Neck and Trunk
b. Respiration
c. TMJ

V. Gait

VI. Posture

Q. LABORATORY OUTLINE: None ☐ Yes ☒

I. Basic Kinesiological Concepts
a. Linear, translatory, angular motion
b. Open/closed kinematic chains
c. Planes of motion
d. Introduction to palpation/visual observation of the human body

II. Muscular System
a. Muscle shapes/fiber direction
b. Terminology associated with muscles and muscle contractions
c. Active/Passive insufficiency
d. Levers

III. Nervous System
a. Divisions of CNS/PNS

IV. Hip and Pelvis
a. Observe and palpate bony landmarks
b. Palpate muscular origins and insertions
c. Analysis of functional movements, active/passive insufficiency, forces/levers

V. Knee
a. Observe and palpate bony landmarks
b. Palpate muscular origins and insertions
c. Analysis of functional movements, active/passive insufficiency, forces/levers

VI. Ankle/Foot
a. Observe and palpate bony landmarks
b. Palpate muscular origins and insertions
c. Analysis of functional movements, active/passive insufficiency, forces/levers

VII. Shoulder Girdle
a. Observe and palpate bony landmarks
b. Palpate muscular origins and insertions
c. Analysis of functional movements, active/passive insufficiency, forces/levers

VIII. Shoulder Joint
a. Observe and palpate bony landmarks
b. Palpate muscular origins and insertions
c. Analysis of functional movements, active/passive insufficiency, forces/levers

IX. Elbow/Forearm
a. Observe and palpate bony landmarks
b. Palpate muscular origins and insertions
c. Analysis of functional movements, active/passive insufficiency, forces/levers

X. Wrist/Hand
a. Observe and palpate bony landmarks
b. Palpate muscular origins and insertions
c. Analysis of functional movements, active/passive insufficiency, forces/levers

XI. Neck/Trunk
a. Observe and palpate bony landmarks
b. Palpate muscular origins and insertions
c. Analysis of functional movements, active/passive insufficiency, forces/levers

XII. Gait Cycle
a. Observe and describe components of the gait cycle utilizing traditional and Rancho Los Amigos terminology
b. Calculation of cadence, velocity, step and stride length

XIII. Posture
a. Observation and description of normal posture in sitting and standing positions