RARITAN VALLEY COMMUNITY COLLEGE
ACADEMIC COURSE OUTLINE

FITN 205 - Measurement & Evaluation of the Lower Body

I. Basic Course Information

A. Course Number and Title: FITN 205 - Measurement & Evaluation of the Lower Body

B. New or Modified Course: Modified

C. Date of Proposal: Semester: Fall Year: 2021

D. Effective Term: Fall 2022

E. Sponsoring Department: Health Science Education

F. Semester Credit Hours: 3

G. Weekly Contact Hours: 4 Lecture: 2
Laboratory: 2
Out of class student work per week: 5

H. Prerequisites: FITN 123 – Prevention & Care of Athletic Injuries

I. Laboratory Fees: None

J. Department Chair at time of approval:
Linda Romaine, Linda.Romaine@raritanval.edu, 908 526-1200 x8290

Divisional Dean at time of approval:
Dr. Sarah Imbriglio, Sarah.Imbriglio@raritanval.edu, 908 526-1200x8241

II. Catalog Description

Prerequisites: FITN 123 – Prevention & Care of Athletic Injuries
This course provides an in-depth examination of the evaluation of common injuries sustained by individuals in the lower extremity. Students will gain practical knowledge and skills in the orthopedic evaluation of the low back, hip, thigh, knee, shin, ankle, and foot areas. All components of a complete and thorough evaluation will be covered, including but not limited to: injury history, observation, range of motion, manual muscle testing, and special tests. Emphasis will be placed on the critical thinking and problem-solving skills associated with the evaluation process.

III. Statement of Course Need

A. This course is designed to introduce the student to the professions in the sports medicine field, specifically focused on the in-depth examination and evaluation of the lower extremity. Students will develop in depth knowledge of the joints, muscles, and connective tissue in the major joints of the lower extremity, and the skills to conduct an orthopedic evaluation of those joints. The evaluation will consist of taking a thorough injury history, observation and palpation of the injured area, range of motion and special testing of each joint, and proper recording of the data collected.

B. Lab is conducted in this course to teach the student the practical application of the theories and processes learned in the lecture part of the course.

C. This course generally transfers as an Exercise Science/Sports Medicine program requirement. This course generally transfers as a Health Science program elective.

IV. Place of Course in College Curriculum

A. Free Elective
B. This course meets a program requirement for the Associate Degree in Exercise Science Option in Sports Medicine & Rehabilitation.
C. To see course transferability: a) for New Jersey schools, go to the NJ Transfer website, www.njtransfer.org; b) for all other colleges and universities, go to the individual websites.

V. Outline of Course Content

A. The physiology of tissue injury and healing
B. The structure of an orthopedic/sports medicine assessment
C. Anatomy, Biomechanics, Pathology, and evaluation of the:
    1. Lumbar Spine
    2. SI Joint/Pelvis
    3. Hip
    4. Knee
    5. Ankle/Foot
    6. Lower Extremity neurovascular structures
D. Regional Interdependence and Evaluation of Functional Movement Patterns
E. Gail Analysis
F. Return-to-sport testing
G. Therapeutic Rehabilitation

VI. General Education and Course Learning Outcomes

A. General Education Learning Outcomes:

At the completion of the course, students will be able to:

1. Demonstrate proper protocol for injury evaluation of the lower extremity, analyze the data collected, determine proper care for the athlete, and express findings and assessments both orally and in writing (GE-NJ 1)*
2. Analyze and present a case study based on lower extremity injury, evaluation, and rehabilitation using evidence-based research to support findings. (GE-NJ, NJ IL)*

*Embedded Critical Thinking

B. Course Learning Outcomes:

At the completion of the course, students will be able to:

1. Describe the underlying mechanism of injury to the lower extremity and related areas.
2. Discuss the stages of inflammation, tissue healing, and repair with respect to examination and treatment of musculoskeletal dysfunction.
3. Present case studies to peers in a formal setting.
4. Demonstrate professional behavior.
5. Collect peer reviewed journal articles on selected case-study topics, analyze and interpret information, and produce written and oral reports.
6. Take a patient history to direct examination for musculoskeletal problems and to screen for red flag medical conditions.
7. Conduct a screening examination to confirm extremity musculoskeletal diagnosis and to determine need for additional physical therapy or other practitioner referral.
8. Examine posture and body mechanics to help determine pathomechanics of select musculoskeletal dysfunction.
9. Perform appropriate manual muscle test, selective resistive motion, or functional measure of motor function to better define impairments, assist in diagnostic process, and plan of care.
10. Assess pain in qualitative and quantitative ways to assist in diagnosis, document impairments, and plan course of care.
11. Recognize the need for, and instruct subjects in, ROM, strengthening, and neuro reeducation exercises for selected musculoskeletal conditions.
12. The student will be able to understand and design the components of a therapeutic exercise program generally and per specific body region and injury based on subject's impairments.

C. Assessment Instruments

1. Laboratory products
2. Case studies
3. Tests and quizzes
4. Practical skills demonstrations
5. Assignments

VII. Grade Determinants

A. Lecture and lab participation
B. Case Study Presentations
C. Homework Assignments
D. Tests/quizzes

Given the goals and outcomes described above, LIST the primary formats, modes, and methods for teaching and learning that may be used in the course:

A. lecture/discussion
B. small-group work
C. laboratory
D. simulation/role playing
E. Homework Assignments

VIII. Texts and Materials

- *Arnheim's Principles of Athletic Training: A Competency Based Approach* -13th ed., William E. Prentice, McGraw Hill, 2017
- *Examination of Orthopedic and Athletic Injuries*, 4th ed. Chad Starkey, Sara D. Brown, Jeff Ryan, F.A. Davis, 2015

(Please Note: The course outline is intended only as a guide to course content and resources. Do not purchase textbooks based on this outline. The RVCC Bookstore is the sole resource for the most up-to-date information about textbooks.)

IX. Resources

A. RVCC Library
B. RVCC Exercise Science Lab

X. Honors Options: n/a