RARITAN VALLEY COMMUNITY COLLEGE
ACADEMIC COURSE OUTLINE

FITN 201 Kinesiology

I. Basic Course Information

A. Course Number and Title: FITN 201 Kinesiology

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/Corequisites: BIOL124 Human Anatomy & Physiology I

I. Laboratory Fees: None

J. Name and Telephone Number or E-Mail Address of Department Chair and Divisional Dean at time of approval:
Dept Chair: Linda Romaine Linda.Romaine@raritanval.edu 908 526-1200 x8290
Dean: Sarah Imbriglio Sarah.Imbriglio@raritanval.edu 908 526-1200 x 8241

II. Catalog Description

Pre-requisite: BIOL124 Human Anatomy & Physiology I

Kinesiology is the study of human movement, including the study of muscles, bones and joints, as they are involved in the science of movement. The physiological and mechanical principles are addressed to enhance the understanding of the structures discussed. Emphasis will be placed on learning how movement is analyzed along with the underlying principles so that the student can see how improvements can be made in human performance.

III. Statement of Course Need

A. This course is designed to introduce the student, both theoretically through lecture and practically in lab exercises, to all aspects of the study of human movement and analysis of that movement in an attempt to improve human performance. It is a required course to enable the student to successfully complete the Associate Degree in Exercise Science; Associate Degree in Exercise Science -Option in Sports Management and the Associate in Applied Science, Occupational Therapy Assistant degrees.
B. The lab component of this course helps the student to understand the theoretical components taught in lecture through application of the principles learned.
C. This course generally transfers as a free elective or as a Fitness/Physical Education/Exercise Science program elective or program requirement

IV. Place of Course in College Curriculum

A. Free Elective
B. This course meets a program requirement for Exercise Science, Associate of Science, Exercise Science-Option in Sports Medicine & Rehabilitation, Associate of Science, Occupational Therapy Assistant, Associate of Applied Science.
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. Anatomical and Physiological Fundamentals of Human Movement
    1. The Musculoskeletal System
        a. Skeletal Framework and its Movements
        b. The Musculature
    2. The Neuromuscular Basis of Human Movement
    3. The Shoulder Region
    4. The Elbow, Forearm, Wrist and Hand
    5. The Hip Region
    6. The Knee, Ankle and Foot
    7. The Spinal Column and the Thorax
B. Fundamentals of Biomechanics
    1. Terminology and Measurement in Biomechanics
    2. The Description of Human Movement
    3. The Conditions of Linear Movement
    4. The Conditions of Rotary Motion
    5. The Center of Gravity and Stability
C. Motor Skill Principles and Applications
    1. The Standing Posture
    2. Kinesiology of Fitness and Exercise
    3. Moving Objects: Pushing and Pulling
    4. Throwing, Striking and Kicking

VI. General Education and Course Learning Outcomes

A. General Education Learning Outcomes:

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

1. Use various types of motion software to analyze the kinesthetic principles of a sports related movement. (GE-NJ 3, 4, IL)*
2. Research, write and present a paper analyzing a sports related movement or a movement of daily living. movement. (GE-NJ 1, IL)*
3. Use scientific method to identify factors that can improve safety, effectiveness and efficiency in performance, and present conclusions orally and in writing (graphs). (GE-NJ GE 3)*
4. Produce accurate lab reports. (GE-1)

***embedded critical thinking**

B. Course Learning Outcomes:

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

1. Define Kinesiology and its importance in the study of human motion and describe the major components of kinesiological analysis.
2. Name, describe and properly use general kinesiology terms.
3. Utilize methods of observation and palpation to identify the joints and muscles groups associated with specific movements.
4. Demonstrate and name fundamental movement patterns and planes of movement, state the mechanical purpose of certain movements, and describe specific motor skills.
5. Name, describe and analyze the basic structures and functions of the nervous system and structure and properties of muscle tissue.
6. Evaluate and synthesize information gathered on the internet and through the library data base to write a research paper and prepare a presentation on movement analysis.
7. Analyze and describe (either written or orally) a specific sports related movement using specific movement analysis software to evaluate the safety, effectiveness and efficiency of the movement.
8. Locate information on the Internet and/or the library database to analyze the safety, efficiency and effectiveness of specific sports related movements

C. Assessment Instruments

1. laboratory products

2. research papers
3. oral presentations
4. case analysis
5. examinations

VII. Grade Determinants

A. research papers
B. lab reports
C. exams and quizzes
D. presentations
E. class attendance & participation

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. use of relevant software
D. laboratory
E. student oral presentations

VIII. Texts and Materials

A. Hamilton, Weimar & Luttgens, Kinesiology, Scientific Basis of Human Motion, 12th ed., McGraw Hill, 2012.
B. Floyd, Manual of Structural Kinesiology, 21st Ed., McGraw Hill, 2021
C. Visible Body CourseWare, 2021

(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 Fitness Center
B. RVCC Exercise Science Lab
C. RVCC Library
D. Computer Software

X. Honors Options: N/A