RARITAN VALLEY COMMUNITY COLLEGE
ACADEMIC COURSE OUTLINE

EXSC 135 – Introduction to Weight Training

I. Basic Course Information

A. Course Number and Title: EXSC 135 – Introduction to Weight Training

B. New or Modified Course: Modified

C. Date of Proposal: Semester: Fall Year: 2024

D. Effective Term: Fall 2025

E. Sponsoring Department: Health Science Education

F. Semester Credit Hours**: 2**

G. Weekly Contact Hours**: 3** Lecture**:** 1
Laboratory**:** 2
Out of class student work per week: 3

H. ☐ Prerequisite (s):
☐ Corequisite (s):
☐ Prerequisite (s) and Corequisite (s):

I. Additional Fees**:** None

II. Catalog Description

This course introduces the student to proper exercise technique and program design for resistance training. Students will be taught how to administer and interpret field tests for muscular strength, endurance, and power, and use the information obtained in testing to develop an effective resistance training program to meet the goals for the health benefits of the general population, competitive athletes, and special populations. A variety of training techniques will be introduced along with proper techniques, benefits of various types of training systems, spotting techniques, and the science behind effective training.

III. Statement of Course Need

A. This course is designed to introduce students to weight training principles and the development of effective programs for health and sports-related benefits. Students will learn how to assess strength and endurance levels, design effective programs, instruct and demonstrate proper weight-lifting form, and review program

effectiveness. Students will also learn safety and injury prevention in the weight room and proper progression for improvement.

B. This course develops skills that are used in several of the upper-level courses in the curriculum, including practical application needed for Cooperative Education.

C. The lab experience in this course is needed to get hands-on practice with effective coaching, fitness testing, spotting, proper execution of lifts, and overall safety in the weight room.

D. This course generally transfers as an exercise science program requirement. This course generally transfers as a fitness and wellness program elective.

IV. Place of Course in College Curriculum

A. Free Elective (This applies automatically to all college-level credit courses in the College.)
B. This course meets a program requirement for the Associate Degree in Exercise Science and the Fitness Specialist Certificate degree.
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. Understanding Human Movement
    1. The Kinetic Chain & Segmental Roles
    2. Planes of Motion
    3. Integration of Human Movement Systems
    4. Types of Muscle Contractions
B. Principles of Resistance Training
    1. Basic Terminology
    2. Training Intensity and Volume
    3. Rest Periods
    4. Safety and Spotting
C. Types of Strength Training
    1. Training Systems
    2. Recommendation of Sets and Reps
    3. Recommendation of Intensity and Frequency
    4. Free vs. Fixed Form
D. Physiological Adaptations and Program Design
    1. Bioenergetics
    2. Skeletal Muscle Fibers and Characteristics
    3. Mechanisms of Hypertrophy, Strength, and Power
    4. Periodization Techniques
E. Coaching and Teaching the Lifts/Movement Patterns

1. Squat
2. Hip Hinge
3. Lunge
4. Upper Body Pushing/Pressing
5. Upper Body Pulling/Rowing
6. Core

VI. A. <u>Course Learning Outcomes</u>:

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

1. Define weight and resistance training and state the benefits.
2. Develop effective programs to enhance muscular strength, endurance, and/or power for the general population, competitive athletes, youth, seniors, and a variety of special populations. (GE-1, IL)*
3. Demonstrate safe and effective weight exercises for the major muscles of the body using a variety of equipment, including free weights; machines; straps; bands; balls; and body weight.
4. Demonstrate and teach weight training movements in proper form.
5. Discuss the benefits and limitations of different types of resistance equipment, including free weights, weight machines, straps, and body weight exercises. (GE-1)
6. Review scientific literature to apply evidence-based practice to program design. (GE-IL) *

* embedded critical thinking

B. <u>Assessment Instruments</u>

1. Laboratory products
2. Research papers/summaries
3. demonstrations
4. exams/quizzes
5. case studies

VII. Grade Determinants

A. essays/case studies
B. projects
C. tests
D. demonstrations/presentations

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. case studies
D. laboratory
E. practical demonstrations

VIII. Texts and Materials
This course uses Open Educational Resources (OER) embedded into the course shell in RVCC's learning management system.

(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. Lab Equipment
C. RVCC Library

X. Check One: ☐Honors Course ☐Honors Options ☒ N/A