GROSSMONT COLLEGE

COURSE OUTLINE OF RECORD

Curriculum Committee Approval: 11/30/2021

GCCCD Governing Board Approval: 12/14/2021

ES 023B - INTERMEDIATE RESISTANCETRAINING

1. Course Number Course Title Semester Units

ES 023B Intermediate Resistance Training 1.0

Semester Hours

1 hour lecture 16-18 hours 32-36 outside-of-class hours 1 hour laboratory 16-18 hours

64-72 total hours

2. Prerequisites

None

Corequisites

None

Recommended Preparation

A “C” grade or higher or “Pass” in ES 023A or equivalent or specified skill competencies.

3. Catalog Description

A continuation of ES 023A, this course provides instruction and practice in resistance training with emphasis in intermediate level use of resistance exercise machines, free weights, and other equipment. Emphasis will be placed on the latest scientific theories and correct lifting techniques of resistance training. Students will develop a personalized intermediate level muscular strength, muscular endurance, and flexibility program. Students will also learn the fundamental principles of physical fitness and their impact on a life-long health and wellness.

4. Course Objectives

The student will:

1. Interpret and adapt intermediate level resistance training principles and programs.
2. Classify and locate the major muscle groups and intermediate resistance exercises and stretches.
3. Evaluate muscle strength, muscle endurance, and body composition through pre & post assessments.
4. Demonstrate concepts of and implement resistance training principles and systems.
5. Design, monitor, and evaluate a personalized intermediate level resistance training program using principles of resistance training and exercise theories.
6. Identify and interpret the Core Curriculum concepts that lead to an active and healthy lifestyle.
7. Evaluate physical literacy and apply personal habits that prevent disease and promote health.
8. Instructional Facilities
9. Resistance Training Lecture and Lab Facility that is ADA compliant
10. Resistance training equipment and supplies: Barbells, dumbbells, variable resistance machines, plate loaded weight machines, physio balls, equipment accessories, powerlifting platforms, stability training equipment, medicine ball, kettle bells, and any other current industry-approved equipment.
11. Floor Mats for each student
12. Physical fitness assessment equipment
13. Projector, screen, and audio and visual equipment

1. Special Materials Required of Student
2. Appropriate fitness attire (t-shirts, shorts or sweat paints, and proper athletic shoes)
3. Appropriate footwear
4. Towel
5. Course Content
6. Physiological assessment of current fitness and health levels (muscle strength, muscle endurance, flexibility, body composition, body mass index, girth measurements, and blood pressure)
7. Resistance training modalities and activities:
8. Review basic modalities: body weight, dumbbells, barbells, plate-loaded machines, isotonic resistance machines, cable/pulley equipment, suspension training, kettle bells, and medicine balls.
9. Intermediate level use of stability equipment and activities: physio ball, Bosu trainer and unilateral exercises
10. Selection of intermediate level resistance training exercises and stretches for the major muscle groups
11. Resistance training principles
12. Resistance training concepts:
13. Individual training goals at the intermediate level: muscle strength, muscle endurance, and general muscle fitness
14. Types of muscle contraction: concentric, eccentric, isometric, isotonic, and isokinetic
15. Phases of a lifting session (dynamic warm-up, resistance training exercises, static stretches, and recovery)
16. Development of an intermediate level personalized fitness training program
17. Personal goals and needs
18. Resistance training program design variables:
    * + - 1. Selection of exercises
          2. Sequence
          3. Tempo/cadence
          4. Volume: resistance, repetitions, and sets
          5. Rest periods
          6. Frequency of training sessions
          7. Range of motion
19. Resistance training systems (i.e., pyramid, single set, multiple set, super set, and compound)
20. Resistance training techniques: review of basic lifting mechanics
21. Review basic lifting mechanics (starting position and movement technique)
22. Intermediate techniques (unilateral, compound, instability)
23. Grips (i.e., supinate/underhand and pronate/overhand, neutral, and alternating/reverse)
24. Grip widths (i.e., shoulder-width, narrow, and wide)
25. Breathing (patterns and Valsalva maneuver)
26. Spotting
27. Flexibility and recovery
28. Types of flexibility: dynamic and static
29. Types of stretching exercises for each muscle group.
30. Self-myofascial release (i.e., foam rolling)
31. Injury prevention and treatment (RICE)
32. Resistance training adaptations
    1. Benefits of resistance training
    2. Basic muscle physiology (motor unit recruitment, neuromuscular adaptation, and hypertrophy)
33. Correct technique for using resistance training equipment and activities.
34. Muscle development activities at an intermediate level: proper technique for body weight, weight training machines, and resistance training equipment (i.e., tubing, dumbbells)
35. Flexibility activities: stretching exercises.
36. Core Curriculum Concepts
37. Increasing physical literacy
    1. Self-efficacy, motivation, adherence strategies
    2. Benefits of leading a physically active lifestyle.
38. Fitness training principles: progressive overload, specificity, reversibility, individuality, FITT
39. Name and location of major muscle groups
40. Healthy eating principles
41. Six essential nutrients
42. Healthy eating patterns based on current guidelines.
43. Body composition and weight management: assessment, strategies to improve, and role of exercise and healthy eating)
44. Impact of an active and healthy lifestyle on disease prevention: heart disease, obesity, metabolic conditions, stress management, and mental health
45. Method of Instruction

a. Group and individual lecture

b. Visual and online instructional materials (DVD, video, fitness apps and software, and Canvas)

c. Student demonstration and performance

d. Instructor-led demonstration and activities

e. One-on-one instruction and consultation

f. Physiological assessments and monitoring

1. Methods of Evaluating Student Performance
2. Observation of correct form of movement mechanics, resistance training principles, and program design variables (criteria checklist)
3. Written final exam (knowledge and Core Curriculum Concepts)
4. Written self-assessments (i.e., resistance training log)
5. Pre and post fitness assessment~~s~~
6. Muscle strength (i.e., resistance training machine, barbells, and dumbbells)
7. Muscle endurance (i.e., push-ups, plank, and sit-ups)
8. Flexibility (i.e., back saver sits and reach)
9. Body Composition (i.e., bioelectrical impedance, skinfold calipers, girth measurements)
10. Health Measurements (i.e., resting heart rate, resting blood pressure, height/weight)
11. Evaluation of outside class assignments
12. Practical exams (resistance training technique for specific exercises)

10. Outside Class Assignments

1. Perform at least one additional day of prescribed resistance exercises to meet minimum frequency standards needed to improve muscle strength, muscle endurance, and flexibility.
2. Weekly assignments (i.e., reading, discussion forum on class concepts, video analysis, self-reflection)
3. Assignments based on course text (i.e., healthy eating, risk of heart disease)

11. Representative Texts

a. Representative Text(s):

Exercise Science and Wellness Department. *The Way to a Long and Healthy Life*. El Cajon, CA: Grossmont College, 6th edition, 2017.

b. Supplementary texts and workbooks:

Instructor material**s**

Student Learning Outcomes

Upon completion of the course, the student will:

1. Demonstrate basic knowledge, skills, and an appreciation of beginning resistancetraining.
2. Identify the basic principles for maintaining an active and healthy life.