

CUYAMACA COLLEGE
COURSE OUTLINE OF RECORD

EXERCISE SCIENCE 012 – INDIVIDUALIZED SPORTS CONDITIONING

3 hours laboratory, 1 unit

Catalog Description

Kinesiology Lab course designed to provide advanced exercisers with the opportunity to increase their fitness levels with an emphasis on strength training and muscle flexibility. An individualized fitness program will then be prescribed utilizing the student's personal fitness goals. *Due to health and safety considerations, only one Kinesiology Lab class (ES 010, 011, 012) may be taken per semester.*

Prerequisite

None

Course Content

- 1) Orientation to Kinesiology Lab/Free Weight Facility strength and flexibility equipment and resources
- 2) Fitness evaluation: cardiovascular fitness, muscular strength, flexibility, muscular endurance, body composition
- 3) Proper use of strength and flexibility equipment
- 4) Principle of Specificity:
 - a. Working the muscles that need attention: upper body, lower body
 - b. Balancing opposing muscle groups
 1. Biceps/triceps
 2. Chest/upper back and shoulders
 3. Abs/lower back
 4. Quads/hamstrings
 5. Anterior Tib's/Gastroc groups
- 5) Overload Principle:
 - a. A muscle must be slightly overloaded to increase in strength
 1. Muscular endurance
 - (1) Low weights - possible to do 8-10 reps
 - (2) High reps - after 5-20 increase weights
 - b. Strength
 1. Height weight - lift 5-8, increase weight
 2. Low reps - after 5-8, increase weight
- 6) Recordkeeping - Weight Cards:
 - a. Names of all circuit machines - know names of muscle worked
 - b. Weight in # of plates and in pounds
 - c. Record weight, # of reps, # of sets each day
 - d. Increase weight per guidelines stated above

Course Objectives

Students will be able to:

- 1) Describe how principles learned in class may be applied to improve muscle strength, muscle endurance and flexibility, three of the five basic components of fitness.
- 2) Evaluate parameters of fitness in order to identify areas of strength and weakness relative to population norms and/or pre-test values for the purpose of developing a personal exercise prescription.

- 3) Demonstrate proper use of strength training equipment and correct muscle flexibility form and technique.
- 4) State personal (realistic) strength and flexibility goals based on objective test measures and principles presented in class.

Method of Evaluation

A grading system will be established by the instructor and implemented uniformly. Grades will be based on demonstrated proficiency in subject matter determined by multiple measurements for evaluation, one of which must be written exams, skills demonstration or, where appropriate, the symbol system.

- 1) Quizzes and exams that measure students' ability to appraise, identify, explain, describe and/or provide examples of exercises and other activities that are appropriate for their physical conditions and limitations.
- 2) Objective skills testing which measures students' proficiency and improvement in performing appropriate exercises and activities given their physical abilities.
- 3) Targeted exercise activities that measure students' ability to demonstrate proper strength and stretching techniques.
- 4) Objective physical fitness evaluations (e.g., sit and reach flexibility, goniometry range of motion testing, muscular strength and endurance) that measure students' abilities as compared to population norms.
- 5) Quizzes and exams that measure students' ability to identify, explain, describe and/or provide examples of strength and flexibility exercises.

Special Materials Required of Student

Gym clothes, shoes, towel

Minimum Instructional Facilities

- 1) Kinesiology Lab/Free Weight Facility
- 2) Track
- 3) Assessment Center

Method of Instruction

- 1) Lecture and demonstration
- 2) Supervision
- 3) Online resources (web searches)

Out-of-Class Assignments

- 1) Assigned reading
- 2) Online quizzes
- 3) Fitness log

Texts and References

- 1) Required (representative example): Instructor materials
- 2) Supplemental: None

Student Learning Outcomes

Upon successful completion of this course, students will be able to:

- 1) Define strength conditioning terms.
- 2) Describe methods of monitoring strength fitness improvement.