

KINE 095: EXERCISE SCIENCE

Date Submitted: Fri, 01 Mar 2019 00:46:17 GMT

Originator

wansley

Justification / Rationale

Code alignment project recommendation

Effective Term

Fall 2019

Credit Status

Credit - Degree Applicable

Subject

KINE - Kinesiology

Course Number

095

Full Course Title

Exercise Science

Short Title

EXERCISE SCIENCE

Discipline**Disciplines List**

Physical Education

Modality

Face-to-Face

Catalog Description

This course is a study of the body systems and physiological processes of response and adaptation which enhance and improve both health and fitness of people who exercise regularly. An overview of exercise physiology, biomechanics, sport nutrition, safety considerations, and physical conditioning is covered. Current technologies to achieve strength, fitness, and maximum performance are utilized.

Schedule Description

This course will focus on theory and the latest research in the biomechanics and physiology of muscle development of people who exercise regularly.

Lecture Units

1

Lecture Semester Hours

18

Lab Units

1

Lab Semester Hours

54

In-class Hours

72

Out-of-class Hours

36

Total Course Units

2

Total Semester Hours

108

Required Text and Other Instructional Materials**Resource Type**

Web/Other

Description

Instructor Handouts

Resource Type

Book

Author

Potteiger, J. A

Title

ACSM's Introduction to Exercise Science

Edition

3rd

Publisher

LWW

Year

2017

College Level

Yes

ISBN #

9781496339614

Class Size Maximum

30

Course Content

1. Introduction to the sciences of human movement
2. Basic human anatomy and applied terminology.
3. Anatomical Kinesiology
4. Program design and exercise prescription
5. Training intensity levels
6. Energy pathways
7. Biomechanics
8. Power lifting
9. Exercise Physiology
10. Motor development, learning, and control
11. Fitness and health across a lifespan

Lab Content

1. Mechanical factors related to human movement
2. Acute and chronic conditions associated to the human body's responses to exercise
3. Field evaluative processes
4. Injury prevention techniques

5. Conditioning techniques
6. Exercise prescription
7. Bioenergetics
8. Application of interrelationship between structure and physical function
9. Data collection, analysis, and discussion of results

Course Objectives

Objectives	
Objective 1	Explore a basic introduction to human anatomy.
Objective 2	Understand the fundamentals of strength training, fatigue, injury, periodization, and specificity in training.
Objective 3	Demonstrate awareness of research tools and knowledge of the scientific process.
Objective 4	Examine the scientific process of human movement and its historical beginnings.
Objective 5	Describe the structure and function of the human nervous, skeletal, and muscular systems.
Objective 6	Develop an understanding of the anaerobic and aerobic processes that provide energy for the working muscle.
Objective 7	Explore the many and varied benefits of regular exercise and physical training.
Objective 8	Examine the interaction of exercise, nutrition, and body composition.
Objective 9	Assess exercise capacity and health risk.
Objective 10	Examine the influence of personality, motivation, stress, and social factors on participation in physical activity.
Objective 11	Understand the diversity of human motor performance and learning.

Student Learning Outcomes

Upon satisfactory completion of this course, students will be able to:	
Outcome 1	Analyze biomechanics in relation to human movement across a lifespan.
Outcome 2	Demonstrate procedures that are used to assess exercise capacity and health risk.

Methods of Instruction

Method	Please provide a description or examples of how each instructional method will be used in this course.
Demonstration, Repetition/Practice	
Collaborative/Team	
Activity	
Self-exploration	
Participation	
Observation	
Lecture	
Individualized Study	
Discussion	Group discussion

Methods of Evaluation

Method	Please provide a description or examples of how each evaluation method will be used in this course.	Type of Assignment
College level or pre-collegiate essays		
Self-paced testing, Student preparation		
Student participation/contribution		
Tests/Quizzes/Examinations		
Group activity participation/observation		
Presentations/student demonstration observations		
Field/physical activity observations		
Laboratory projects		
Self-paced testing, Student preparation		
Reading reports		

Critiques

Written homework

Assignments

Other In-class Assignments

1. Individual assessments of techniques
2. Fitness testing
3. Group or partner review of applicable techniques
4. Exercise prescription

Other Out-of-class Assignments

1. Reading assignments from handouts
2. Independent skill practice
3. Additional conditioning worksheets
4. Written analysis of individual performance and progress
5. Case study and application of biomechanical principles
6. Case study and application of exercise prescription

Grade Methods

Letter Grade Only

Comparable Transfer Course Information

University System

CSU

Campus

CSU San Bernardino

Course Number

KINE 240

Course Title

Exercise Science Software

MIS Course Data

CIP Code

31.0501 - Health and Physical Education/Fitness, General.

TOP Code

083520 - Fitness Trainer

SAM Code

C - Clearly Occupational

Basic Skills Status

Not Basic Skills

Prior College Level

Not applicable

Cooperative Work Experience

Not a Coop Course

Course Classification Status

Credit Course

Approved Special Class

Not special class

Noncredit Category

Not Applicable, Credit Course

Funding Agency Category

Not Applicable

Program Status

Program Applicable

Transfer Status

Transfer CSU, limited UC

Allow Audit

No

Repeatability

No

Materials Fee

No

Additional Fees?

No

Approvals**Curriculum Committee Approval Date**

03/21/2019

Academic Senate Approval Date

03/28/2019

Board of Trustees Approval Date

05/17/2019

Chancellor's Office Approval Date

6/1/2019

Course Control Number

CCC000605869

Programs referencing this course

Fitness Specialist Certificate of Achievement (<http://catalog.collegeofthedesert.eduundefined?key=148>)

Personal Trainer Certificate of Achievement (<http://catalog.collegeofthedesert.eduundefined?key=80>)