

KINS 48: FITNESS ASSESSMENT TECHNIQUES FOR THE PERSONAL TRAINER

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2023
Units:	4
Hours:	4 lecture per week (48 total per quarter)
Advisory:	This is a Physical Education activity course, so UC transfer credit is limited—please visit a counselor for details; not open to students with credit in KINS 52.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU/UC
Grade Type:	Letter Grade (Request for Pass/No Pass)
Repeatability:	Not Repeatable

Description

The mechanics of fitness training, including strength, endurance, and flexibility; provides students the necessary knowledge base to select appropriate fitness assessments. Discussion regarding training techniques, optimal workout environments, safety, contraindications, equipment, and existing certification programs will prepare the student to work in the fitness industry. Students will evaluate existing standardized assessment batteries for cardiorespiratory endurance, muscular strength, muscular endurance, flexibility and body composition, blood pressure, and cholesterol.

Course Objectives

The student will be able to:

- a. Examine the anatomical and physiological changes that occur with weight training
- b. Analyze and select specific exercise equipment for specific goals of strength training
- c. Contrast differences in exercise equipment design
- d. Construct specific strength-training exercises for a variety of training goals
- e. Select strength-training exercises for all major muscle groups of the body
- f. Examine the five components of physical fitness
- g. Analyze the personal history of any individual wishing to begin a strength-training program
- h. Design personalized strength-training programs
 - i. Evaluate specific ergogenic aids to programs of strength training
 - j. Examine and evaluate existing standardized exercise tests and select the correct test for the given population situation
- k. Examine and interpret results of cardiorespiratory, strength and endurance, flexibility testing
 - l. Recognize and evaluate results from cholesterol and diabetes testing
- m. Examine and evaluate blood pressure, comparing hypertensive numbers to recommended pressures
- n. Demonstrate competence in conducting the health/lifestyle identifying risk factors
- o. Evaluate fitness assessments and establish a safe and effective fitness program

Course Content

- a. Muscle anatomy and physiology
 - i. Structure and action of striated muscle
 - ii. Physiology of muscle contraction
- b. Biomechanics of resistance exercise
 - i. The musculoskeletal system
 - ii. Human strength and power
 - iii. Sources of resistance to muscle contraction
 - iv. Power output during resistance exercise
 - v. Lifting safety
 - vi. Movement analysis and exercise prescription
 - vii. Principles of weight training
- c. Cardiovascular and respiratory anatomy and physiology responding to exercise
 - i. Cardiovascular and respiratory response to acute exercise
 - ii. Cardiovascular and respiratory response to exercise training
- d. Flexibility
 - i. Range of motion
 - ii. Appropriate stretch
- e. Performance enhancing substances
 - i. Risks and effects
- f. Selecting appropriate tests
 - i. Validity
 - ii. Reliability
 - iii. Objectivity
- g. Testing protocols and procedures
 - i. Administering tests
 - ii. Health and fitness field tests
- h. Evaluating test data
 - i. Statistics
 - ii. Developing a profile
 - iii. Goal setting
- i. Components of physical fitness and standardized testing tools
 - i. Cardiorespiratory endurance
 - ii. Muscular strength
 - iii. Muscular endurance
 - iv. Flexibility
 - v. Body composition
- j. Exercise prescription
 - i. Physical properties of exercise: intensity, duration, frequency, and type
 - ii. Factors influencing prescription: fitness level, age, gender, and physical contraindications

Lab Content

Not applicable.

Special Facilities and/or Equipment

1. Standard classroom for lecture and discussion.
2. Electronic storage media.
3. When taught via Foothill Global Access, on-going access to computer with email software and hardware; email address.

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

Written assignments
Quizzes
Compressive exams, including final
Outside class projects as assigned

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

Lecture
Videos and guest speakers will be utilized when appropriate
Discussion

Representative Text(s) and Other Materials

Bushman, Barbara A., and Rebecca Battista (editors). ACSM's Resources for the Personal Trainer, 5th ed.. 2018.

Pescatello, Linda (editor). ACSM's Resource Manual for Guidelines for Exercise Testing and Prescription, 9th ed.. 2014.

Although these texts are older than the suggested "5 years or newer" standard, they remain seminal texts in this area of study.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

- a. Weekly reading assignments from text and other sources ranging from 30-60 pages per week
- b. Review of current periodicals with a 1-2 page paper discussing the important information in the periodical
- c. Guest speakers: industry and faculty speakers covering selected topics

Discipline(s)

Physical Education