

Las Positas College
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Course Outline for KIN XT1

X-TRAINING

Effective: Fall 2015

I. CATALOG DESCRIPTION:

KIN XT1 — X-TRAINING — 1.00 - 2.00 units

This kinesiology class will offer the student an opportunity to learn how to exercise safely in a Weight/Cardio gym. Circuit, Interval and Cross Training programs will be introduced. The topics of discussion will include: equipment orientation and safety, Principles of Resistance and Aerobic Training, energy systems used for various training regimens, and the benefits of exercise in establishing and maintaining a healthy lifestyle throughout life.

1.00 - 2.00 Units Lab

Grading Methods:

Letter or P/NP

Discipline:

	<u>MIN</u>	<u>MAX</u>
Lab Hours:	54.00	108.00
Total Hours:	54.00	108.00

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:

Upon completion of this course, the student should be able to:

- Exhibit knowledge of proper and safe usage of equipment in gym - Resistance and Cardio
- Describe the differences in Circuit, Interval, and Cross Training
- Define the Principles associated with Resistance Training
- Perform 3 assessments of Aerobic/Cardio intensities
- Discuss the Cardio Physiology of Training
- Distinguish between the Energy Systems used in exercise
- List the benefits of exercise in relation to healthy lifestyle management

V. CONTENT:

- Orientation to the Gym layout of equipment and Safety Guidelines for usage
 - Weight training machines - Fly, Leg Press, Chest Press, Cable/Pulleys, Quad Extension, Hamstring Curl, Leg abductor/adductor
 - Cardio machines: Treadmill, Stationary Cycles, Recumbent Bikes, Jacob's Ladder, eliptycle, stairmaster
 - Appropriate gym etiquette
- Definition of Training Regimens
 - Circuit Training
 - Interval Training
 - Cross Training
- Resistance Training Principles
 - Musculoskeletal Strength Versus Muscular Endurance
 - Variables of Training - sets, repetition, resistance, recovery,tempo
 - Principles of Training - overload, progression, rest, diminishing returns
 - Basic musculoskeletal anatomy & anatomical terminology
- Cardio Training Principles
 - Aerobic versus anaerobic training
 - Assessment of Intensity
 - Target Heart Rate - Karvonen Formula
 - Perceived Exertion Scale
 - "Talk" Test
- Cardio-Physiology
 - Oxygen Uptake (VO2 uptake)
 - Ejection Fraction
 - Lower Heart Rates - exercising & resting
- Energy Systems used in Training
 - Aerobic endurance - glycogen system - cardio equipment
 - Anaerobic exercise - ATP system - strength equipment
 - Lactic Acid System

- 4. Thresholds of Training
- G. Benefits of Physical Training for Healthy Lifestyle

VI. METHODS OF INSTRUCTION:

- A. **Observation and Demonstration** -
- B. **Individualized Instruction** -
- C. **Demonstration** -

VII. TYPICAL ASSIGNMENTS:

- A. Student will be asked to read specific chapters in text that are related to subject matter being discussed in lecture content.
- B. Student will design a personal exercise routine to be used as the activity component of class.
- C. Students will perform pre and post fitness assessments relative to circuit training programs.
- D. Student will complete an anatomy handout with correct basic musculoskeletal anatomy.
- E. Student will research the benefits of resistance and cardio training programs relative to healthy lifestyle.

VIII. EVALUATION:

A. **Methods**

- 1. Exams/Tests
- 2. Class Performance
- 3. Other:
 - a. Daily attendance will be taken and noted
 - b. Active Participation will be observed and documented
 - c. Pre and Post Fitness Assessments - muscular and cardio endurance evaluations
 - 1. 1 mile walk, Core Assessment, 40 Second Muscular Endurance

B. **Frequency**

- 1. Final Exam will be given during Finals Week as determined by College
- 2. Each class session attendance and performance will be documented
- 3. Third week of semester - pre fitness assessment conducted
- 4. Fifteenth week of semester - post fitness assessment conducted

IX. TYPICAL TEXTS:

- 1. Delavier, Frederic. *Strength Training Anatomy.*, Human Kinetics, 2010.
- 2. Sharkey, Brian . *Fitness Illustrated.*, Human Kinetics, 2011.
- 3. Delavier, Frederic, and Michael Gundill. *Delavier's Core Training Anatomy.*, Human Kinetics, 2011.
- 4. Sharkey, Brian , and Steven Gaskill. *Fitness & Health.*, Human Kinetics, 2013.

X. OTHER MATERIALS REQUIRED OF STUDENTS:

- A. Student should provide appropriate exercise attire and footwear for given activity requirements.
- B. Student should be able to access the internet and Blackboard for Instructor postings.