

**EL CAMINO COLLEGE
COURSE OUTLINE OF RECORD**

I. COURSE DESCRIPTION

Course Title and Number : Physical Education 290 (Official)

Descriptive Title : Personal Fitness Trainer

Discipline : Physical Education

Division : Health Sciences and Athletics

Course Length : Full Term
 Other (specify:)

Hours Lecture : 2

Hours Laboratory : 3

Course Units : 3

Grading Method : Letter
 Pass/No Pass
 Both
 No Grade

Course Type : Credit, Degree Applicable
 Credit, Not Degree Applicable
 Non-Credit

Transfer CSU : Yes (Effective Date: Prior to July 1992)
 No

Transfer UC : Yes (Approval Date: Prior to July 1992)
 Pending
 No

Conditions of Enrollment: Specify Prerequisite, Corequisite, Recommended Preparation, Enrollment Limitation, or None.

Recommended Preparation: English 84 and Mathematics 25 or Mathematics 23

Catalog Description :

This course provides the scientific foundations and practical experience required by Personal Fitness Trainers for certification by agencies such as American College of Sports Medicine (ACSM), National Strength Coaches Association (NSCA), National Academy of Sports Medicine (NASM), and others. The course is broad-based, with topical areas including basic exercise physiology, biomechanics, fitness assessments, exercise prescriptions, fitness training principles, nutrition, weight management, and work with special populations. The business aspects of Personal Training are also

reviewed.

II. COURSE OBJECTIVES

List the major objectives of the course. These must be stated in behaviorally measurable terms.

1. Appraise health history by obtaining information on past and present health and exercise experiences.
2. Evaluate health history data with respect to assessment selection, exercise training considerations, or referral to other health professionals.
3. Recognize the major risk factors associated with cardiovascular, respiratory, and metabolic diseases.
4. Predict the expected cardiovascular, respiratory, and neuromuscular responses to acute incremental and constant rate exercise.
5. Recognize the expected cardiovascular, respiratory, and neuromuscular adaptations to the effects of specific exercise training.
6. Identify the major muscle groups of the human and specific resistance training exercises for each.
7. Administer appropriate tests to assess cardiopulmonary fitness, body composition, muscular strength/power/endurance, and flexibility.
8. Interpret the results of typical assessments for cardiopulmonary fitness, body composition, muscular strength/power/endurance, and flexibility.
9. Individualize an effective exercise training plan to improve cardiopulmonary fitness, muscular performance, flexibility, and body composition when appropriate health history and assessment data are provided.
10. Discuss biomechanical considerations in weight lifting and other exercise techniques.
11. Evaluate the quality and quantity of key macro- and micro-nutrients obtained from a 3-day diet log.
12. Structure an appropriate nutritional plan based on a 3-day diet history.
13. Integrate exercise training, nutrition, and behavior modification strategies in the design of a weight management program.
14. Give examples of assessment and training considerations that must be addressed when working with special populations.
15. Outline the necessary steps in establishing a Personal Trainer business.

III. OUTLINE OF SUBJECT MATTER

The topics should be detailed enough to enable an instructor to determine the major areas that should be covered and so that the course may have consistency from instructor to instructor and semester to semester.

Approximate Time in Hours	Major Topics
5	I. Health History Appraisal and Risk Factor Identification A. Medical and exercise history B. Cardiovascular, pulmonary, and metabolic disease risk factors, signs, and symptoms C. Measurement of resting heart rate and blood pressure D. Risk stratification
8	II. Functional anatomy and biomechanics A. Cardiovascular System B. Pulmonary system C. Musculoskeletal system D. Nervous system E. Basic principles of motion, levers, force, velocity F. Biomechanical integration of systems
10	III. Basic Exercise Physiology A. Cardiovascular System B. Pulmonary system C. Musculoskeletal system D. Nervous system E. Endocrine system F. Metabolism
3	IV. Acute Responses to Exercise A. Endurance exercise B. Resistance exercise C. Speed training
3	V. Adaptations to chronic endurance and resistance exercise training A. Cardiovascular B. Pulmonary C. Musculoskeletal D. Endocrine E. Metabolic
4	VI. Assessing Cardiorespiratory Fitness A. Laboratory testing B. Field testing
8	VII. Assessing Musculoskeletal Performance

- A. Muscle strength
 - B. Local muscle endurance
 - C. Muscle power
 - D. Range of motion
 - E. Functional assessments
- 3 VIII. Assessing anthropometric variables
- A. Height, weight, body mass index, waist circumference, muscle girths
 - B. Percent relative body fat, lean body mass, skeletal muscle mass
- 15 IX. Developing Individualized Exercise Plans
- A. Endurance training
 - B. Resistance training
 - C. Speed and agility training
 - D. Balance and stability training
 - E. Applications in special populations
- 15 X. Conducting Effective Exercise Training
- A. Methods of individual and group exercise instruction
 - B. Endurance training techniques
 - C. Resistance training techniques
 - D. Techniques for instructing balance and stability
- 9 XI. Nutrition and Weight Management
- A. Macronutrients
 - B. Micronutrients
 - C. Hydration
 - D. Supplements
 - E. Energy balance
- 4 XII. Behavior modification
- A. Goal setting
 - B. Motivational strategies
 - C. Mindfulness
- 3 XIII. Business Aspects of Personal Training
- A. Identifying the target client
 - B. Customer service
 - C. Marketing and selling services
 - D. Developing a business plan
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- 90 TOTAL HOURS

IV. METHODS OF EVALUATION

A. CREDIT, DEGREE APPLICABLE AND CREDIT, NOT DEGREE APPLICABLE COURSES

Check the PRIMARY method of evaluation for this course.

- Substantial writing assignments
- Problem solving demonstrations (computational or non-computational)
- Skill demonstrations

A minimum of one response in 1, 2, or 3 below, as applicable, is required. However, you may check all that apply.

1. Indicate the types of writing assignments used as primary or secondary methods of evaluation for this course.

- Essay exams
- Written homework
- Term or other papers
- Reading reports
- Laboratory reports
- Other (specify)

2. Indicate the types of problem-solving demonstrations used as primary or secondary methods of evaluation for this course.

- Exams
- Laboratory reports
- Quizzes
- Homework problems
- Fieldwork
- Other (specify)
Exercise techniques demonstrations

3. Indicate the types of skill demonstrations used as primary or secondary methods of evaluation for this course.

- Class performance
- Performance exams
- Fieldwork
- Other (specify)

4. If objective exams are also used, check all that apply.

- Multiple choice
- Completion
- Matching items
- True/false
- Other (specify)

B. NON-CREDIT COURSE

Indicate the methods of evaluation that will be used to determine that the stated objectives have been met.

V. COURSEWORK

A. TYPICAL ASSIGNMENT

Provide an example of a typical assignment. This assignment must correspond to the PRIMARY method of evaluation indicated in Section IV, Methods of Evaluation. That is, it must be a writing assignment or, if more appropriate, an assignment involving problem solving or skill demonstration.

Using results from fitness assessments, design an effective endurance exercise training program for a 40 year old, previously sedentary male with a goal of weight loss, increased aerobic fitness, and the reduction of cardiopulmonary disease risk factors.

B. COLLEGE-LEVEL CRITICAL THINKING ASSIGNMENTS

Cite two specific assignments that demonstrate college-level critical thinking. (Required for degree applicable courses only.)

1. Using results from a given fitness assessments and client goal statements prepare a written profile of test performance and compare the client's performance to age and gender based reference values. Indicate areas in need of improvement.
2. During a laboratory session, chart the heart rate and blood pressure responses against incremental treadmill speeds and grades in three minute intervals. Overlay a model of responses predicted to occur after 8 weeks of endurance exercise training.

C. WORK OUTSIDE OF CLASS

Two hours of work outside of class are required for each hour of lecture or equivalent. Each student in this course will be required to participate in the following work outside of class time. Check all that apply.

- Study
- Answer questions
- Skill practice
- Required reading
- Problem solving activity
- Written work (such as essay/composition/report/analysis/research)
- Journal (done on a continuing basis throughout the semester)
- Observation of or participation in an activity related to course content (such as theatre event, museum, concert, debate, meeting)
- Course is lab only - minimum required hours satisfied by scheduled lab time
- Other (specify)

Students are required to accumulate 20 hours of internship practice in fitness assessments and exercise training.

VI. INSTRUCTIONAL METHODOLOGY

Check all planned instructional activities that apply:

- Lecture
- Lab
- Discussion
- Multimedia presentations
- Demonstration
- Group activities
- Role play/simulation
- Guest speakers
- Field trips
- Other (specify)

Use of personal computers for generation of fitness profiles, exercise prescriptions, and nutritional evaluations.

NOTE: In compliance with Board Policies 1600 and 3410, Title 5 California Code of Regulations, the Rehabilitation Act of 1973, and Sections 504 and 508 of the Americans with Disabilities Act, instructional delivery shall provide access, full inclusion, and effective communication for students with disabilities.

VII. TEXTS AND MATERIALS

If multiple selection is offered, only representative texts need be listed. An up-to-date list of required and recommended materials is maintained in the division office.

A. REQUIRED TEXTS (title, author, publisher, year)

Guidelines for Exercise Testing and Prescription, American College of Sports Medicine, Lippincott Williams and Wilkins, 5th Edition, 1995, discipline and industry standard

NASM Essentials of Personal Fitness Training, Lippincott Williams and Wilkins, 3rd Edition, 2008

B. REQUIRED SUPPLEMENTARY READINGS**C. OTHER REQUIRED MATERIALS**

VIII. CONDITIONS OF ENROLLMENT

If this course has a prerequisite or corequisite, complete section A. If this course has an Enrollment Limitation, complete section B.

A. PREREQUISITE AND/OR COREQUISITE

1. Indicate if this course has a prerequisite, corequisite, both, or none.

- Prerequisite
 Corequisite

2. Indicate Type. Check all that apply.

- Sequential
 Computational/Communication Skills
 Health and Safety
 Non-Course
 Standard (If this is a Standard Prerequisite or Corequisite, attach CCC Form D.)

3. Entrance Skills/Knowledge

List the required skills and/or knowledge without which a student would be highly unlikely to receive a grade of A, B, C, or Credit (or for Health and Safety, would endanger self or others) in this course.

B. ENROLLMENT LIMITATION

1. Indicate the category which describes the Enrollment Limitation for this course.

- Band/Orchestra
 Theater
 Speech
 Chorus
 Journalism
 Dance
 Intercollegiate Athletics
 Honors Course
 Blocks of Courses
 Other (specify)

2. List Degree and/or Certificate requirements that are met by this course.

3. List all El Camino College courses that also satisfy the requirements listed above in section B.2.

Originator: Thomas W. Storer Submittal Date: Fall 1989
 Ph.D.

BOARD APPROVAL DATE:

Reviewed and/or Revised by:

Thomas W. Storer, Ph.D.

Date: Fall 1990

Thomas W. Storer, Ph.D.

Date: Fall, 1998

Thomas W. Storer, Ph.D.

Date: 10-23-2009