

CATALOG INFORMATION

Dept and Nbr: PHYSIO 50      Title: EXERCISE, FITNESS  
Full Title: Exercise, Fitness and Wellness  
Last Reviewed: 2/23/2009

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	4.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	4.00	Lab Scheduled	3.00	17.5	Lab Scheduled	52.50
		Contact DHR	0		Contact DHR	0
		Contact Total	6.00		Contact Total	105.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00

Total Student Learning Hours: 210.00

Title 5 Category: AA Degree Applicable  
Grading: Grade or P/NP  
Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP  
Also Listed As:  
Formerly:

**Catalog Description:**  
For anyone who wants to develop a deeper understanding of exercise, fitness and wellness, to know how and why the body responds to exercises and how best to exercise to achieve fitness and optimal health. Also of interest to students seeking certificates in aerobics, dance, massage therapy, personal training and physical therapy assistant. Topics include: muscular strength, aerobic fitness, weight control, nutrition and cardiovascular disease. Laboratory exercises include the determination of cardiovascular fitness, percent body fat, blood pressure, serum glucose and cholesterol. These topics will be explored to acquire the knowledge to design individual exercise, health and wellness programs.

**Prerequisites/Corequisites:**

**Recommended Preparation:**  
Eligibility for ENGL 100 or ESL 100

**Limits on Enrollment:**

**Schedule of Classes Information:**  
Description: For anyone who wants to develop a deeper understanding of exercise, fitness and

wellness, to know how and why the body responds to exercise and how best to exercise to achieve fitness and wellness. Also of interest to students seeking certificates in aerobics, dance, massage therapy, personal training and physical therapy assistant. (Grade or P/NP)

Prerequisites/Corequisites:

Recommended: Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Transfer Credit: CSU;

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	Effective:	Inactive:
<b>CSU GE:</b>	<b>Transfer Area</b>	Effective:	Inactive:
	E	Fall 1981	Spring 2012
	Lifelong Learning and Self Development		
<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
<b>CSU Transfer:</b>	Transferable	Effective: Fall 1981	Inactive: Spring 2012
<b>UC Transfer:</b>		Effective:	Inactive:

**CID:**

**Certificate/Major Applicable:**

Not Certificate/Major Applicable

## **COURSE CONTENT**

**Outcomes and Objectives:**

The student will be able to:

1. Define inductive reasoning and deductive reasoning and describe skepticism.
2. Design and evaluate scientific experiments and evaluate the source and credibility of information.
3. Define wellness and list its components, including physical fitness.
4. Assess heart rate and blood pressure.
5. Define nutrition and describe its relationship to health and wellness and how carbohydrates, fats and proteins, vitamins and minerals function in the body.
6. Conduct a comprehensive nutrient analysis.
7. Define body composition and its relationship to recommended body weight and describe the methodology used to assess body composition.
8. Describe a weight loss and weight maintenance program and describe the physiology of weight loss.
9. Define aerobic and anaerobic exercise and describe their benefits.
10. Administer four different maximal oxygen uptake estimation protocols including the 1.5 Mile Run Test and the Astrand Ryhming Test.
11. Describe how adequate strength is necessary for fitness and wellness and describe the principles that govern the development of muscular

- strength and endurance.
12. Define muscular flexibility and describe its importance to adequate fitness and wellness and define ballistic stretching, slow-sustained stretching, and proprioceptive neuromuscular facilitation stretching.
  13. Describe a complete set of exercises for an overall body flexibility development program.
  14. Describe the six components of skill-related fitness.
  15. Define cardiovascular disease and coronary heart disease and describe the major risk factors that lead to the development of coronary heart disease.
  16. Describe a comprehensive program for reducing coronary heart disease and managing cardiovascular disease risk.
  17. Define cancer and describe how it starts and spreads and describe the American Cancer Society's guidelines for cancer prevention.
  18. Define stress, eustress, distress and describe stress management techniques.
  19. Describe the detrimental health effects of tobacco use.
  20. Describe the most common sexually transmitted diseases and describe the difference between HIV and AIDS.
  21. Describe the relationship between fitness and aging.

### **Topics and Scope:**

1. Scientific Method
  - A. Induction
  - B. Deduction
  - C. Experimental Design
2. Physical Fitness and Wellness
  - A. Definitions of Fitness and Wellness
  - B. Fitness Standards
  - C. Major U.S. Health Problems
3. Principles of Nutrition for Wellness
  - A. Nutrients
  - B. Energy Production
  - C. Nutrition for Athletes
  - D. Nutrition for Women
4. Body Composition Assessment
  - A. Techniques
  - B. Determining Recommended Body Weight
5. Principles of Weight Control
  - A. Obesity and Overweight
  - B. Physiology of Weight Loss
  - C. Weight Loss Myths
6. Cardiovascular Endurance Assessment
  - A. Aerobic and Anaerobic Endurance
  - B. Interpreting Maximal Oxygen Uptake
7. Principles of Cardiovascular Exercise Prescription
  - A. Guidelines
  - B. Rating the Fitness Benefits of Aerobic Activities
  - C. Predicting Oxygen Uptake and Caloric Expenditure
8. Muscular Strength and Endurance Assessment
  - A. Aging and Metabolic Rate

- B. Gender Differences
- C. Strength Training Programs
- 9. Principles of Strength Training
  - A. Factors Affecting Strength
  - B. Strength Training Exercises
- 10. Muscular Flexibility Assessment
- 11. Principles of Muscular Flexibility Prescription
  - A. When to Stretch?
  - B. Preventing and Rehabilitating Lower Back Pain
- 12. Skill-Related Components of Physical Fitness
- 13. Preventing Cardiovascular Disease
  - A. Coronary Heart Disease Risk Profile
  - B. Abnormal Electrocardiogram
  - C. Abnormal Cholesterol
  - D. Diabetes
  - E. Smoking
  - F. Personal and Family History
  - G. Age
- 14. Cancer Risk Management
  - A. Incidence of Cancer
  - B. Cancer Prevention
- 15. Stress Management
  - A. Sources
  - B. Vulnerability
  - C. Coping
- 16. Smoking Cessation
- 17. Addictive Behaviors and Sexually Transmitted Diseases
  - A. Drugs and Addiction
  - B. Sexually Transmitted Diseases
- 18. Relevant Fitness and Wellness Issues
  - A. Exercise and Aging
  - B. Accident Prevention
  - C. Health/Fitness Club Memberships

**Laboratory Material:**

- 1. Heart Rate and Blood Pressure
- 2. Nutrient Analysis
- 3. Hydrostatic Weighing for Body Composition
- 4. Estimation and Daily Caloric Requirement
- 5. Cardiovascular Endurance Assessment
- 6. Cardiovascular Exercise Prescription
- 7. Muscular Strength and Endurance Assessment
- 8. Muscular Flexibility Assessment
- 9. Exercises for Prevention and Rehabilitation of Low Back Pain
- 10. Self Assessment of Cardiovascular Risk
- 11. Cancer Prevention
- 12. Stress Vulnerability Questionnaire
- 13. Stress Management Techniques
- 14. Addictive Behavior Questionnaire
- 15. Self Quiz on HIV and AIDS

**Assignment:**

1. Read an average of 20-40 pages per week of text and laboratory material.
2. Write lab reports and complete laboratory exercises and questionnaires.
3. Write a research paper of eight to ten pages based upon a project on personal fitness and wellness.
4. Conduct fitness assessments and design exercise programs.

### Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Term papers

Writing  
10 - 30%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Homework problems, Lab reports

Problem solving  
25 - 40%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Conduct fitness assessments

Skill Demonstrations  
15 - 25%

**Exams:** All forms of formal testing, other than skill performance exams.

Multiple choice, True/false, Matching items, Completion

Exams  
20 - 40%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

CLASS PARTICIPATION, ATTENDANCE AND COOPERATION

Other Category  
5 - 15%

### Representative Textbooks and Materials:

PRINCIPLES AND LABS FOR PHYSICAL FITNESS AND WELLNESS: by Werness W.K. Hoeger and Sharon A. Hoeger; 6th edition, 2002, Wadsworth  
FIT AND WELL: by Thomas D.Fahey, Paul M. Insel and Walton T. Roth, 2002, Mayfield