

SYLLABUS  
PART I  
EDISON COMMUNITY COLLEGE  
BIO 225S EXERCISE PHYSIOLOGY  
3 CREDIT HOURS

**COURSE DESCRIPTION**

Investigates the fundamental physiological processes that operate during exercise. Emphasis will be placed on integrating systems and organs into a functional whole. This class is intended for Associate of Arts and Associate of Science Degree seeking students or transfer students. This class is not intended for PTA students and does not meet PTA requirements. Prerequisite: BIO 125S.

**COURSE GOALS**

The student will:

Bloom's Level		Gen Ed Outcomes
1	1. Describe the basic concepts of physiology related to control of the internal environment, bioenergetics, exercise metabolism, and hormonal response to exercise.	1, 2
3	2. Demonstrate an understanding of exercise physiology as it relates to nervous, muscular, circulatory, and respiratory systems of the human body.	1, 6
1	3. Describe the effects of exercise on acid-base balance of the human body.	1, 2, 6
3	4. Demonstrate an understanding of the physiology of training.	1, 2, 6
5	5. Assess and apply information and knowledge gained in this course to make informed, healthful lifestyle changes.	1, 6
3	6. Apply the essential principles on the physiology of health and fitness.	1, 2
2	7. Discuss the influence of environmental factors on exercise performance.	1, 2
2	8. Explain exercise's relationship to health and the role of diet in health promotion and prevention of chronic diseases.	1, 2, 5
4	9. Compare and contrast acute and chronic response to exercise.	1, 6
4	10. Compare and contrast acute and chronic response to exercise.	1, 6
3	11. Develop an awareness of the exercise considerations for the various sexes and ages.	4, 5, 6

**CORE VALUES**

The Core Values are a set of principles that guide in creating educational programs and environments at Edison. They include communication, ethics, critical thinking, human diversity, inquiry/respect for learning, and interpersonal skills/teamwork. The goal, objectives, and activities in this course will introduce/reinforce these Core Values whenever appropriate.

**TOPIC OUTLINE**

1. Muscle Exercise
2. Cardiovascular and Respiratory Function
3. Exercise Training
4. Environmental Influences on Performance
5. Optimal Performance in Sport
6. Age and Sex Considerations in Sport and Exercise
7. Physical Activity for Health and Fitness