Alexandria Technical and Community College

EXSC 1630: Training Principles and Methodology II

A. COURSE DESCRIPTION

Credits: 3
Lecture Hours/Week: 2
Lab Hours/Week: 2
OJT Hours/Week: *.*

Prerequisites:
This course requires the following prerequisite
EXSC 1600 - Training Principles and Methodology I (Number of Years Valid: 5)

Corequisites: None

MnTC Goals: None

This course is a continuation of Training Principles & Methodology I and provides students with preparation for design and application of health/fitness related programs. Students will review exercise science, principles, and systems and their relevance to designing cardio-respiratory, resistance, power, and flexibility/mobility training programs. Skills and competence in creating and evaluating fitness programming will be improved, with an emphasis on understanding training theory and methods of exercise. Coursework will develop a greater comprehension of the effects of exercise on the human body, proper prescription of exercises in program design, and recovery will be developed. Students will examine and design fitness-training programs selecting specific approaches/systems of implementation. Students will receive on-going introduction of specialized training modes or options of training.

B. COURSE EFFECTIVE DATES: 04/24/2019 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Understand how the essential principles of exercise directly guide fitness program design.
2. Learn to use variables in effectively prescribing fitness exercises and creating fitness programs.
3. Demonstrate an understanding of how and why resistance exercise, cardio-respiratory exercise, and mobility exercise is used in fitness training programs.
4. Develop a procedure for designing fitness programs and practice creating resistance and cardio-respiratory exercise programs.
5. Evaluate relevant concepts of and existing systems of fitness program design.
6. Understand the methodology of creating effective warm-ups and cool-downs.
7. Study reactive training and the development of explosiveness/power/speed; understand the stretch shortening cycle and the use of plyometric training.
8. Gain appreciation for exercise science research; read and review articles of current research and evaluate efficacy of conclusions.
9. Examine and evaluate various tools, machines, and implements used in fitness training.
D. LEARNING OUTCOMES (General)
   1. The learner will be able to demonstrate skills and knowledge in the area of physiological adaptation to resistance, cardiorespiratory, and flexibility/mobility exercise and primary modalities of exercise for each area.
   2. The learner will have skills and knowledge in adjusting training variables to design and modify fitness programs.
   3. The learner will acquire knowledge of and develop a methodology for designing comprehensive fitness and performance improvement programs for a vast array of individual needs and objectives.
   4. The learner will develop/increase interpersonal and client interaction skills.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted