

KNLS 240

Principles of Muscular Conditioning and Flexibility

3 Credits

Community College of Baltimore County Common Course Outline

Description

KNLS 240 – Principles of Muscular Conditioning and Flexibility: investigates the theories and applied principles of physical training and conditioning as they relate to flexibility improvement and muscular strength, endurance, and power development. Students examine the principles and training variables of weight training, a detailed comparison of various weight training techniques, and the development of power through plyometrics.

Pre-requisites: ACLT 052 or ACLT 053 or (ESOL 053 and ESOL 054)

Overall Course Objectives

Upon completion of this course, students will be able to:

1. develop an individually designed exercise program to improve flexibility;
2. demonstrate the various tests to assess flexibility;
3. demonstrate the proper technique for stretches;
4. identify contraindicated exercises and stretches for the general population;
5. demonstrate postural assessment protocols;
6. develop training programs to correct postural deviations;
7. analyze the anatomy and physiology of the musculo-skeletal system;
8. demonstrate the proper procedures in the assessment of muscular strength and endurance;
9. outline the various methods of strength development for specific muscle groups;
10. explain the basic principles of exercise programming to improve muscular strength and/or endurance;
11. identify the factors in designing a strength training program;
12. explain advanced weight training programs;
13. identify the Olympic lifts and explain their unique training programs;
14. demonstrate the techniques of free weight training;
15. demonstrate the techniques of weight training with various types of resistance training machines;
16. describe weight training safety guidelines;
17. explain the power lifts and explain their unique training programs;
18. demonstrate the procedures to evaluate power; and
19. demonstrate power training through plyometrics.

Major Topics

The Common Course Outline (CCO) determines the essential nature of each course.
For more information, see your professor's syllabus.

- I. Flexibility
 - a. Assessment
 - b. Program design
 - c. Contraindications
 - d. Postural screening
- II. Musculo-Skeletal System
 - a. Anatomy and physiology
 - b. Factors that affect strength performance
 - c. Assessment of muscular strength and endurance
- III. Training for Muscular Conditioning
 - a. Isometric
 - b. Isotonic
 - c. Isokinetic
 - d. Principles of weight training
 - e. Training variables
 - f. Advanced weight training techniques
- IV. Training for Muscular Power
 - a. Assessment of power
 - b. Sport specific weight training
 - c. Plyometrics

Course Requirements

Grading will be determined by the individual faculty member, but shall include the following, at minimum:

- Attendance and Participation
- Two Examinations (both include written and practical applications sections)
- One semester-long capstone project
- One oral teaching practicum

Written assignments and research projects: Students are required to use appropriate academic resources in their research and cite sources according to the style selected by their professor.

Other Course Information

KNLS 240 is a lecture and lab class which requires some physical activity. Physician approval to participate may be requested based on the results of health history information. This is a required course in the kinesiology program of study.

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