KIN C289: EXERCISE TESTING AND PRESCRIPTION

Item	Value
Curriculum Committee Approval Date	02/17/2015
Top Code	083500 - Physical Education
Units	3 Total Units
Hours	54 Total Hours (Lecture Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)
Local General Education (GE)	• CL Option 1 Self-Development (CE1)

Course Description

Formerly: PE C189 / PE C289. Prepares students to use a variety of screening methods to analyze the fitness level and risk factors of implementing an individual exercise program. The course will include the application of health behavior modification theories, strategies for determining individual expectations, and appropriate fitness goals to optimize adherence to an exercise plan. Students will be able to design and implement exercise programs for specific client needs (e.g., specific sports, performance, lifestyle, functional, balance, agility, aerobic, and anaerobic) as well as for some special populations. ADVISORY: KIN C190 and BIOL C102. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Determine initial frequency, intensity, time (duration), and type (i.e., the FITT principle of exercise prescription) of exercise based on goals, medical history, and assessment results.
2. Develop a comprehensive (i.e., physical fitness, goals, behavior) plan/timeline. Monitor technique and response to exercise, reassessing and modifying as necessary.
3. Create a positive exercise experience in order to optimize participant adherence by applying effective communication techniques, motivation techniques, and behavioral strategies.

Course Objectives

- 1. Identify the components of a Health Risk Appraisal and how this information can be used.
- 2. Classify an individuals risk and determine the need for medical clearance for participation in exercise.
- 3. Identify appropriate assessment tools to measure the components of fitness.
- 4. Address specific client and environmental needs in designing an exercise plan.
- 5. Describe and conduct methods of measuring body composition and the guidelines and limitations for each.
- 6. Describe the basic components of an exercise prescription.

Lecture Content

Scientific Foundations Functional Anatomy and Biomechanics Exercise Physiology Overview Metabolic Systems and Costs of Exercise Exercise Assessments Health Risk Appraisal- medical/health history, medical clearance, and informed consent. Analyze data to classify risk factors Fitness testing/physical assessments. Cardiovascular Muscular Fitness Body Composition Flexibility/Functional Movement Evaluate behavioral readiness to start an exercise program and setting client-oriented goals. Exercise Program Design and Implementation Determine initial frequency, intensity, time (duration), and type (i.e., the FITT principle of exercise prescription) of exercise based on goals, medical history, and assessment results. Program development for specific client needs including specific sports, lifestyle, function, balance, agility, aerobic, and anaerobic. Appropriate teaching techniques and the ability to demonstrate exercises to a wide variety of individuals. Working with Special Populations Risks and benefits associated with guidelines for exercise training and programming for healthy adults, seniors, children, adolescents, pregnant women, and those medically cleared to exercise with chronic disease. Special precautions and modifications of exercise programming for participation in various environments or conditions (altitude, different ambient temperatures, humidity, and environmental pollution). Patient/Client Education Different types of feedback (i.e., evaluative, supportive, descriptive) and the ability to use feedback to optimize a clients training session. Barriers to exercise adherence and compliance (e.g., time management, injury, fear, lack of knowledge, we ather) and specific techniques to facilitate motivation (e.g., goal setting, incentive programs, achievement recognition, social support). Supporting the fitness goals by supplying support information on health and nutrition, dispelling myths, and promoting overall knowledge of health and fitness.

Method(s) of Instruction

- Lecture (02)
- DE Online Lecture (02X)

Instructional Techniques

Instructional methods will include a series of lectures, demonstrations, self-assessments, DVD, and/or video enhancements to build student confidence and the ability to provide fitness assessment and prescribe an exercise program.

Reading Assignments

Textbook reading and library research assignments; examples include researching the effectiveness of behavior modification techniques on exercise and wellness, or a critique of sample exercise plans for special populations.

Writing Assignments

Reaction papers on given topics, article review(s), video critiques, case studies, analysis of various websites, and/or creation of scenarios with effective techniques.

Out-of-class Assignments

Student activities may include selecting and applying assessment tools, reading articles and/or discussing experiences, entering into discussions with peers and question-and-answer sessions, applying data to the development of appropriate fitness plans, and interpreting situations and laws governing fitness professionals.

Demonstration of Critical Thinking

Examples include correctly selecting and applying assessment tools for an individual client, addressing special needs via case studies, creating scenarios with effective techniques.

Required Writing, Problem Solving, Skills Demonstration

Students may analyze the performance of a particular exercise and discuss or identify possible errors in technique and the possible solutions they would suggest to the performer. Students may develop reaction papers on given topics, article review(s), video critiques, case studies, and/or analyses of various websites.

Eligible Disciplines

Kinesiology: Masters degree in kinesiology, physical education, exercise science, education with an emphasis in physical education, kinesiology, physiology of exercise, or adaptive physical education OR Bachelors degree in any of the above AND Masters degree in any life science, dance physiology, health education, recreation administration or physical therapy OR the equivalent. Physical education: Masters degree in physical education, exercise science, education with an emphasis in physical education, kinesiology, physiology of exercise, or adaptive physical education, OR bachelors degree in any of the above AND masters degree in any life science, dance, physiology, health education, recreation administration, or physical therapy OR the equivalent. Masters degree required.

Textbooks Resources

1. Required Lippincott; Williams; Wilkins. ACSM Guidelines for Exercise Testing and Prescription, 10th ed. Wolters Kluwer, 2017 2. Required Kenney, W.; Wilmore, J.; Costill, D. Physiology of Sport and Exercise, 7th ed. Human Kinetics, 2019

Other Resources

1. Coastline Library