

Spec. Code: 3050  
Occ. Area: 01  
Work Area: 444  
Prob. Period: 6 mo.  
Prom. Line: none  
Effective Date: 09/01/11  
Last Action: Rev.

## CLINICAL EXERCISE PHYSIOLOGIST

### Function of Job

Employees in this class are responsible for cardiodynamic monitoring, and the determination of maximum aerobic capacity and anaerobic threshold of rehabilitation patients during exercise and for the development of appropriate exercise programs for patients with a variety of diagnoses. They assess, plan, or implement fitness programs that include exercise or physical activities such as those designed to improve cardiorespiratory function, body composition, muscular strength, muscular endurance, or flexibility. Incumbents also are responsible for designing exercise programs for patients whose daily activities routinely involve workloads in excess of anaerobic thresholds. In addition, they supervise exercise physiology interns who require clinical experience. They work under general supervision of the physician director of a medicine program.

### Characteristic Duties and Responsibilities

1. Monitors telemetry and blood pressure during rehabilitation exercise programs of patients with cardiac and vascular disorders as a primary or secondary diagnosis
2. Develops exercise programs for frequency, intensity, and duration, with attention to any abnormal cardiovascular changes during exercise
3. Evaluates aerobic/anaerobic exercise capacity in patients with dyspnea (shortness of breath) as a limiting factor or pulmonary disease
4. Develops exercise programs for patients with dyspnea to measure frequency, intensity, and duration with monitored oxygen (O<sub>2</sub>) supplementation
5. Monitors side effects of medication for patients with dyspnea
6. Differentiates which diagnosis is the limiting factor in patients with more than one diagnosis (such as pulmonary patient with low back musculoskeletal disorder) by administering exercise capacity aerobic and anaerobic testing
7. Quantifies physical activity and exercise in disabled patients by use of technical support, including gas collection ergometry, O<sub>2</sub> oximetry, pulse oximetry, and automated movement analysis to determine deficits in home exercise programs
8. Designs therapeutic exercise programs for higher performance sports and vocational injury patients whose daily activities routinely involve workloads in excess of the anaerobic threshold
9. Performs other related duties as assigned

Minimum Acceptable Qualifications

## CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER

1. (A) Master's degree in exercise science or a related combined degree (such as athletic training)

OR

- (B) Bachelor's degree in exercise science or a related combined degree (such as athletic training) and clinical experience that together provided preparation for the job comparable to that outlined in A<sup>1</sup>
2. **One (1) year (12 months)** of clinical experience in the direct supervised care of patients disabled from nervous, muscular, or skeletal disorders in addition to the training/experience listed in #1

## KNOWLEDGE, SKILLS AND ABILITIES (KSAs)

1. Knowledge of gas collection ergometry
2. Knowledge of O<sub>2</sub> oximetry, pulse oximetry, and automated movement analysis
3. Knowledge of cardiodynamic monitoring equipment and data interpretation
4. Knowledge of aerobic and anaerobic exercise capacity and testing procedures
5. Knowledge of therapeutic exercise protocols for patients whose daily activities routinely involve workloads in excess of anaerobic threshold
6. Knowledge of perceived exertion scales
7. Knowledge of CPR and basic life support/advanced cardiac care
8. Oral and written communication skills
9. Analytical skills for interpretation of capacity test results
10. Quantitative skills to evaluate endurance, anaerobic threshold, and fatigue
11. Interpersonal skills for effective communication with patients, supervisor, and interns

---

<sup>1</sup>In substituting such training and experience for the preparation described in A, it is recommended that in order to ensure consistent application of these qualifications, the evaluation and verification of an applicant's training and experience be accomplished through the cooperative efforts of a person experienced in clinical exercise physiology and the personnel office in a manner that will preserve the applicant's anonymity.

12. Ability to distinguish diagnosis most responsible for impairment and disability when more than one disease or injury is diagnosed
13. Ability to develop exercise program from telemetry and blood pressure data
14. Ability to give a pulmonary capacity statement
15. Ability to determine maximum aerobic capacity and anaerobic threshold of patients during exercise

DRAFT