Comprehensive Evaluation Options for Clinical Exercise Physiology (CEP) Students

Bottom Line: We want you to be successful in the job market!

SUPPORTING TEXTS:

- American College of Sport Medicine. (2014). *ACSM's Guidelines for Exercise Testing and Prescription* (9th ed.). Baltimore, MA: Wolters Kluwer Health\ Lippincott: Williams and Wilkins. **ISBN:** 1609136055
  This will be referred to as **TEXT A**

- American College of Sports Medicine. (2014*). ACSM's Resource Manual for Exercise Testing and Prescription* (7th ed.). Baltimore, MA: Wolters Kluwer Health\Lippincott: Williams and Wilkins. This will be referred to as **TEXT B**

Note: Although not required, it is highly recommended that you buy a learning tools package to help you study for the Clinical Exercise Physiology (CEP) examination if you choose to take this examination. http://certification.acsm.org/acsm-certified-clinical-exercise-physiologist

- ACSM's Guidelines for Exercise Testing and Prescription / $45.99
  ACSM's Resource Manual for Guidelines for Exercise Testing and Prescription / $77.99
  ACSM's Certification Review / $47.99
  Complete Study Kit: Buy all three and save / $146.17

OBJECTIVE:

The purpose of our comprehensive evaluation is twofold: (1) to help you to be successful in the exercise physiology career path; and (2) to ensure that you process the knowledge, skills and abilities to call yourself a clinical exercise physiologist (CEP) when you graduate from Texas Tech University (TTU). The comprehensive evaluation is not intended to be an examination over a specific class but rather an examination over a comprehensive field of study, in this case clinical exercise physiology (CEP). The American College of Sport Medicine (ACSM) is lobbying for licensing of our profession, but there are many opposing lobbying groups. This would be on a state by state basis, Louisiana does have licensing for CEP, and the test that they take for licensure is the CEP. Creation of the registry, the Registered Clinical Exercise Physiologist (RCEP) was one step closer to the ultimate goal of licensure on the part of ACSM. Our hope is that the CEP will be recognized and licensed as a healthcare profession someday in all states. We hope that you become advocates for our field and become involved in the organization.

THE ACSM CERTIFIED CLINICAL EXERCISE PHYSIOLOGIST (CEP) JOB TASK ANALYSIS can be found at the back of the clinical internship manual or on-line at http://certification.acsm.org/files/file/JTA_CEP_2015.pdf

The job task analysis (JTA) is intended to serve as a blueprint for the job of an ACSM Certified Clinical Exercise Physiologist. As you prepare for the exam, it is important to remember that all examination questions are based on this outline. This is true for our departmental generated comprehensive evaluation or the certified CEP examination.

There are five different domains that the questions for the ACSM certification examination and our comprehensive evaluation will be chosen from. The percentage of questions from each domain are also listed. Your assignment is to download the CEP JTA to use this as a study tool for the CEP examination or the departmental generated CEP comprehensive evaluation.

- Domains
  - Domain I: Patient/Client Assessment - 30%
  - Domain II: Exercise Prescription - 30%
  - Domain III: Program Implementation and Ongoing Support - 20%
  - Domain IV: Leadership and Counseling - 15%
  - Domain V: Legal and Professional Considerations - 5%

- The information is listed in this manner:
  - Domain I-V;
  - the Associated Job Task A., B., etc.;
  - Knowledge of;
  - Skill in;

OPTION 1 FOR THE CLINICAL EXERCISE PHYSIOLOGIST COMPREHENSIVE EXAMINATION IN THE DEPARTMENT OF KINESIOLOGY AND SPORT MANAGEMENT:

Successfully pass the ACSM Certified Clinical Exercise Physiology (CEP) Examination.

- Review that certification's Exam Content Outline (found on each certification page). Outline your study plan to ensure you've given yourself enough time to prepare (study materials for each exam can also be found on the certification page). http://www.acsm.org/certification
- The percentage of questions from each domain is listed in the JTA. http://certification.acsm.org/acsm-certified-clinical-exercise-physiologist.
- We suggest that you take the CEP during your second internship during your third semester of study.
- This test is taken at the nearest Pearson VUE testing center. Please visit http://www.pearsonvue.com/acsm/ to schedule to your testing date and location.
- You will have to make an account with **Pearson VUE** before scheduling. If you have any questions, you can contact us at: **800-486-5643**. For questions directly related to your exam scheduling, please call Pearson VUE at **888-883-2276**.

- If you do not pass the certification, you can retake it on your own timeline until you pass it. If you choose this option you must submit your certification results stating that you have successfully passed the CEP before students are required to sign up for comps during their last semester of study. Therefore, we must have your results within the first 4 weeks of the semester in which you are going to graduate. If you have not passed the exam at that time then you must register for the departmental comps in CEP as stated in Option 2.

OPTION 2 FOR THE CLINICAL EXERCISE PHYSIOLOGIST COMPREHENSIVE EXAMINATION IN THE DEPARTMENT OF KINESIOLOGY AND SPORT MANAGEMENT:

You wil**l** take a 100 question multiple-choice exam during the regularly scheduled departmental comps (usually given sometime during the first 6 weeks of your last semester). This exam will be based on the ACSM CEP job task analysis. You must score 80% to pass the exam. If you do not pass the exam, if you do not pass the exam, you will be required to enroll in 1 credit hour the following semester and retake the exam.

ACSM CERTIFIED CLINICAL EXERCISE PHYSIOLOGIST JOB TASK ANALYSIS

The job task analysis is intended to serve as a blueprint of the job of an ACSM Certified Clinical Exercise Physiologist. As you prepare for the exam, it is important to remember that all examination questions are based on this outline.

Job Definition

The ACSM Certified Clinical Exercise Physiologist (CEP) is an allied health professional with a minimum of a Bachelor's degree in exercise science. The CEP works with patients and clients challenged with cardiovascular, pulmonary, and metabolic diseases and disorders, as well as with apparently healthy populations in cooperation with other healthcare professionals to enhance quality of life, manage health risk, and promote lasting health behavior change. The CEP conducts pre-participation health screenings, maximal and submaximal graded exercise tests, and performs strength, flexibility and body composition tests. The CES develops and administers programs designed to enhance cardiorespiratory fitness, muscular strength and endurance, balance, and range of motion. The CEP educates their clients about testing, exercise program components, and clinical and lifestyle self-care for control of chronic disease and health conditions.

Performance Domains and Associated Job Tasks

The Job Task Analysis (JTA) for the CEP describes what the professional does on a day-to-day basis. The JTA is divided into domains and associated tasks performed on the job. The percentages listed below indicate the number of questions representing each domain on the 100-question CEP examination.

The performance domains are:

- Domain I: Patient/Client Assessment - 30%
- Domain II: Exercise Prescription - 30%
- Domain III: Program Implementation and Ongoing Support - 20%
- Domain IV: Leadership and Counseling - 15%
- Domain V: Legal and Professional Considerations - 5%

Domain I: Patient/Client Assessment

Associated Job Tasks

A. Determine and obtain the necessary physician referral and medical records to assess the potential participant.

1) Knowledge of:

a. the procedure to obtain informed consent from participant to meet legal requirements.

b. information and documentation required for program participation.

c. the procedure to obtain physician referral and medical records required for program participation.

d. the procedure to obtain participant's medical history through available documentation.

2) Skill in

a. assessing participant physician referral and medical records to determine program participation status.

B. Perform a preparticipation health screening including review of the participant's medical history and knowledge, their needs and goals, the program's potential benefits and additional required testing and data.

1) Knowledge of:

a. normal cardiovascular, pulmonary and metabolic anatomy and physiology.

b. cardiovascular, pulmonary and metabolic pathologies, clinical progression, diagnostic testing and medical regimens/procedures.

c. instructional techniques to assess participant's expectations and goals.

d. commonly used medication for cardiovascular, pulmonary and metabolic diseases.

e. the effects of physical inactivity, including bed rest, and methods to counteract these changes.

f. normal physiologic responses to exercise.

g. abnormal responses/signs/symptoms to exercise associated with different pathologies (e.g., cardiovascular, pulmonary, metabolic).

h. anthropometric measurements and their interpretation.

i. normal 12-lead and telemetry ECG interpretation.

j. interpretation of ECGs for abnormalities (e.g., arrhythmias, blocks, ischemia, infarction).

k. normal and abnormal heart and lung sounds.

l. pertinent areas of a participant's medical history (e.g., any symptoms since their procedure, description of discomfort/pain, orthopedic issues).

m. validated tools for measurement of psychosocial health status.

n. a variety of behavioral assessment tools (e.g., SF-36, health-related quality of life, Chronic Respiratory Disease Questionnaire) and strategies for their use.

o. psychological issues associated with acute and chronic illness (e.g., anxiety, depression, social isolation, suicidal ideation).

p. participant-centered goal setting.

q. functional and diagnostic exercise testing methods, including symptom-limited maximal and submaximal aerobic testing.

r. indications and contraindications to exercise testing.

s. normal and abnormal (i.e., signs/symptoms) endpoints for termination of exercise testing.

t. testing and interpretation of muscle strength/endurance and flexibility.

u. current published guidelines for treatment of cardiovascular, pulmonary and metabolic pathologies (e.g., ACC/AHA (American College of Cardiology/American Heart Association) Joint Guidelines, GOLD - Global Initiative for Chronic Obstructive Pulmonary Disease, ADA (American Diabetes Association) guidelines).

2) Skill in:

a. auscultation methods for common cardiopulmonary abnormalities.

b. data collection during baseline intake assessment.

c. assessment and interpretation of information collected during the baseline intake assessment.

d. formulating an exercise program based upon the information collected during the baseline intake assessment.

e. selection, application and monitoring of exercise testing for healthy and patient populations.

f. muscle strength, endurance and flexibility assessments for healthy and patient populations.

g. patient preparation and ECG electrode application for resting and exercise ECGs.

C. Evaluate the participant's risk to ensure safe participation and determine level of monitoring/supervision in a preventive or rehabilitative exercise program.

1) Knowledge of:

a. applied exercise physiology principles.

b. cardiovascular, pulmonary and metabolic pathologies, their clinical progression, diagnostic testing and medical regimens/procedures to treat.

c. ACSM's pre-participation screening algorithm.

d. the participant's risk factor profile (i.e., cardiovascular, pulmonary and metabolic) to determine level of exercise supervision using ACSM, AHA, and AACVPR (American Association of Cardiovascular and Pulmonary Rehabilitation) risk

stratification criteria.

e. indications and contraindications to exercise testing.

f. functional and diagnostic exercise testing methods, including symptom-limited maximal and submaximal aerobic testing.

g. interpretation of ECGs for abnormalities (e.g., arrhythmias, blocks, ischemia, infarction).

h. normal and abnormal (i.e., signs/symptoms) endpoints for termination of exercise testing.

i. testing and interpretation of muscle strength/endurance and flexibility.

j. commonly used medication for cardiovascular, pulmonary and metabolic diseases.

k. current published guidelines for treatment of cardiovascular, pulmonary and metabolic pathologies (e.g., ACC/AHA Joint Guidelines, GOLD - Global Initiative for Chronic Obstructive Pulmonary Disease, ADA guidelines).

2) Skill in:

a. risk stratification using established guidelines (ACSM, AHA vs. informal).

b. selection, application and monitoring of exercise tests for apparently healthy participants and those with chronic disease.

c. ECG interpretation and interpreting exercise test results.

Domain II: Exercise Prescription

Associated Job Tasks

A. Develop a clinically appropriate exercise prescription using all available information (e.g., clinical and physiological status, goals and behavioral assessment).

1) Knowledge of

a. applied exercise physiology principles.

b. the FITT (Frequency, Intensity, Time, Type) principle for aerobic, muscular fitness /resistance training and flexibility exercise prescription.

c. cardiovascular, pulmonary and metabolic pathologies, their clinical progression, diagnostic testing and medical regimens/procedures to treat.

d. the effects of physical inactivity, including bed rest, and methods to counteract these changes.

e. normal physiologic responses to exercise.

f. abnormal responses/signs/symptoms to exercise associated with different pathologies (e.g., cardiovascular, pulmonary, metabolic).

g. validated tools of measurement of psychosocial health status.

h. functional and diagnostic exercise testing methods, including symptom-limited maximal and submaximal aerobic testing.

i. normal and abnormal (i.e., signs/symptoms) endpoints for termination of exercise testing.

j. tests to assess and interpret muscle strength/endurance and flexibility.

k. commonly used medication for cardiovascular, pulmonary and metabolic diseases, and their effect on exercise prescription.

l. exercise principles (prescription, progression/maintenance and supervision) for apparently healthy participants and participants with cardiovascular, pulmonary, and/or metabolic diseases.

m. appropriate mode, volume and intensity of exercise to produce desired outcomes for apparently healthy participants and those with cardiovascular, pulmonary and metabolic diseases.

n. the application of metabolic calculations.

o. goal development strategies.

p. behavioral assessment tools (e.g., SF-36, health-related quality of life, Chronic Respiratory Disease Questionnaire) and strategies for use.

q. psychological issues associated with acute and chronic illness (e.g., anxiety, depression, social isolation, suicidal ideation).

2) Skill in:

a. interpretation of functional and diagnostic exercise testing with applications to exercise prescription.

b. interpretation of muscular strength/endurance testing with applications to exercise prescription.

c. developing an exercise prescription based on a participant's clinical status.

B. Review the exercise prescription and exercise program with the participant, including home exercise, compliance and participant's expectations and goals.

1) Knowledge of:

a. applied exercise physiology principles.

b. normal physiologic responses to exercise.

c. abnormal responses/signs/symptoms to exercise associated with different pathologies (e.g., cardiovascular, pulmonary, metabolic).

d. anthropometric measurements and their interpretation.

e. participant-centered goal setting.

f. exercise principles (prescription, progression/maintenance and supervision) for apparently healthy participants and participants with cardiovascular, pulmonary, and/or metabolic diseases.

g. the FITT (Frequency, Intensity, Time, Type) principle for aerobic, muscular fitness /resistance training and flexibility exercise prescription.

h. appropriate mode, volume and intensity of exercise to produce desired outcomes for apparently healthy participants and those with cardiovascular, pulmonary and metabolic diseases.

i. the application of metabolic calculations.

j. goal development strategies.

k. terminology appropriate to provide the client with education regarding their exercise prescription.

l. instructional techniques for safe and effective prescription implementation and understanding by participant.

m. the timing of daily activities with exercise (e.g., medications, meals, insulin/glucose monitoring).

n. disease-specific strategies and tools to improve tolerance of exercise (e.g., breathing techniques, insulin pump use and adjustments, prophylactic nitroglycerin).

o. instructional strategies for improving exercise adoption and maintenance.

p. common barriers to exercise compliance and strategies to address these (e.g., physical, psychological, environmental, demographic).

q. instructional techniques to assess participant's expectations and goals.

r. risk factor reduction programs and alternative community resources (e.g., dietary counseling, weight management/Weight Watchers®, smoking cessation, stress management, physical therapy/back care).

2) Skill in:

a. communicating with participants from a wide variety of educational backgrounds.

b. effectively communicating exercise prescription and exercise techniques.

c. applying various models to optimize patient compliance and adherence in order to achieve patient goals.

C. Instruct the participant in the safe and effective use of exercise modalities, exercise plan, reporting symptoms and class organization.

1) Knowledge of:

a. applied exercise physiology principles.

b. normal physiologic responses to exercise.

c. abnormal responses/signs/symptoms to exercise associated with different pathologies (e.g., cardiovascular, pulmonary, metabolic).

d. the timing of daily activities with exercise (e.g., medications, meals, insulin/glucose monitoring).

e. commonly used medication for cardiovascular, pulmonary and metabolic diseases.

f. lay terminology for explanation of exercise prescription.

g. the operation of various exercise equipment/modalities.

h. proper biomechanical technique for exercise (e.g., gait assessment, proper weight lifting form).

i. muscle strength/endurance and flexibility modalities and their safe application and instruction.

j. tools to measure exercise tolerance (heart rate/pulse, blood pressure, glucometry, oximetry, rating of perceived exertion, dyspnea scale, pain scale).

k. principals and application of exercise session organization.

2) Skill in:

a. the observational assessment of participants.

b. communicating with participants from a wide variety of educational backgrounds.

c. communicating with participants regarding the proper organization of exercise sessions.

Domain III: Program Implementation and Ongoing Support

Associated Job Tasks

A. Implement the program (e.g., exercise prescription, education, counseling, goals).

1) Knowledge of:

a. abnormal responses/signs/symptoms to exercise associated with different pathologies (i.e., cardiovascular, pulmonary, metabolic).

b. normal and abnormal 12-lead and telemetry ECG interpretation.

c. the FITT principle (Frequency, Intensity, Time, Type) for aerobic, muscular fitness /resistance training and flexibility exercise prescription.

d. exercise progression/maintenance and supervision for apparently healthy participants and participants with cardiovascular, pulmonary, and/or metabolic diseases.

e. disease-specific strategies and tools to improve tolerance of exercise (e.g., breathing techniques, insulin pump use and adjustments, prophylactic nitroglycerin).

f. instructional strategies for improving exercise adoption and maintenance.

g. strategies to maximize exercise compliance (e.g., overcoming barriers, values clarification, goals setting).

h. the operation of various exercise equipment/modalities.

i. proper biomechanical technique for exercise (e.g., gait, weight lifting form).

j. tools to measure clinical exercise tolerance (e.g., heart rate, glucometry, oximetry, subjective assessments).

k. the principles and application of exercise session organization.

l. commonly used medications for cardiovascular, pulmonary and metabolic diseases.

m. exercise program monitoring (e.g., telemetry, oximetry, glucometry).

n. principles and application of muscular strength/endurance and flexibility training.

o. methods to assess participant's educational goals.

p. counseling techniques to optimize participant's disease management, risk reduction and goal attainment.

2) Skill in:

a. educating participants on the use and effects of medications.

b. the application of metabolic calculations.

c. communicating the exercise prescription and related exercise programming techniques.

d. observation of clients for problems associated with comprehension and performance of their exercise program.

e. muscular strength/endurance and flexibility training.

B. Continually assess participant feedback, clinical signs and symptoms and exercise tolerance and provide feedback to the participant about their exercise, general program participation and clinical progress.

1) Knowledge of:

a. cardiovascular, pulmonary and metabolic pathologies, their clinical progression, diagnostic testing and medical regimens/procedures to treat.

b. normal and abnormal exercise responses, signs and symptoms associated with different pathologies (i.e., cardiovascular, pulmonary, metabolic).

c. normal and abnormal 12-lead and telemetry ECG interpretation.

d. normal and abnormal heart and lung sounds.

e. the components of a participant's medical history necessary to screen during program participation.

f. appropriate mode, volume and intensity of exercise to produce desired outcomes for apparently healthy participants and those with cardiovascular, pulmonary and metabolic diseases.

g. psychological issues associated with acute and chronic illness (e.g., depression, social isolation, suicidal ideation).

h. the timing of daily activities with exercise (e.g., medications, meals, insulin/glucose monitoring).

i. how medications or missed dose(s) of medications impact exercise and its progression.

j. methods to provide participant feedback relative to their exercise, general program participation and clinical progress.

2) Skill in:

a. auscultation methods for common cardiovascular and pulmonary abnormalities.

b. the assessment of normal and abnormal response to exercise.

c. adjusting the exercise program based on participant's signs and symptoms, feedback and exercise response.

d. communicating exercise techniques, program goals and clinical monitoring and progress.

e. applying and interpreting tools for clinical assessment (e.g., telemetry, oximetry and glucometry, perceived rating scales).

C. Reassess and update the program (e.g., exercise, education and client goals) based upon the participant's progress and feedback.

1) Knowledge of:

a. techniques to determine participant's medical history through available documentation.

b. normal physiologic responses to exercise.

c. abnormal responses/signs/symptoms to exercise associated with different pathologies (e.g., cardiovascular, pulmonary, metabolic).

d. participant's educational and behavioral goals and methods to obtain them.

e. counseling techniques focusing on participant goal attainment.

f. exercise progression/maintenance and supervision for apparently healthy participants and participants with cardiovascular, pulmonary, and/or metabolic diseases.

g. appropriate mode, volume and intensity of exercise to produce desired outcomes for apparently healthy participants and those with cardiovascular, pulmonary and metabolic diseases.

h. strategies to maximize exercise compliance (e.g., overcoming barriers, values clarification, goals setting).

i. risk factor reduction programs and alternative community resources (e.g., dietary counseling/Weight Watchers®, smoking cessation, physical therapy/back care).

j. proper biomechanical technique for exercise (e.g., gait, weight lifting form).

k. clinical monitoring of the exercise program (e.g., telemetry, oximetry and glucometry, adjusting exercise intensity).

l. commonly used medication for cardiovascular, pulmonary and metabolic diseases.

m. the application and instruction of muscle strength/endurance and flexibility modalities.

n. modification of the exercise prescription for clinical changes and attainment of participant's goals.

o. community resources available to the participant following discharge from the program.

2) Skill in:

a. modifying the exercise program based on participant's signs and symptoms, feedback and exercise responses.

b. utilizing metabolic calculations and clinical data to adjust the exercise prescription.

c. observation of participant for problems associated with comprehension and performance of their exercise program.

d. communicating exercise techniques, program goals and clinical monitoring and progress.

e. applying and interpreting tools for clinical assessment (e.g., telemetry, oximetry and glucometry, perceived rating scales).

D. Maintain participant records to document progress and clinical status.

1) Knowledge of:

a. participant's medical history through available documentation.

b. cardiovascular, pulmonary and metabolic pathologies, diagnostic testing and medical management regimens and procedures.

c. commonly used medication for cardiovascular, pulmonary and metabolic diseases.

d. HIPAA (Health Insurance Portability and Accountability Act) regulations relative to documentation.

e. medical documentation (e.g., progress notes, SOAP notes).

2) Skill in:

a. applying knowledge of medical documentation and regulations.

b. summarizing participants' exercise sessions, outcomes and clinical issues into an appropriate medical record.

Domain IV: Leadership & Counseling

Associated Job Tasks

A. Educate the participant about performance and progression of aerobic, strength and flexibility exercise programs.

1) Knowledge of:

a. physiological responses, signs, and symptoms to exercise associated with different pathologies (i.e., cardiovascular, pulmonary, metabolic).

b. exercise (as written above) principles (prescription, progression/maintenance and supervision) for apparently healthy participants and participants with cardiovascular, pulmonary, and/or metabolic diseases.

c. exercise progression, maintenance and supervision for apparently healthy participants and participants with cardiovascular, pulmonary, and/or metabolic diseases.

d. tools for measuring clinical exercise tolerance (e.g., heart rate, glucometry, subjective rating scales).

e. the application and instruction of muscle strength/endurance and flexibility modalities.

f. exercise modalities and the operation of associated equipment.

g. proper biomechanical techniques (e.g., gait assessment, resistance training form).

h. methods to educate participant in proper exercise programming and progression.

i. the timing of daily activities with exercise (e.g., medications, meals, insulin/ glucose monitoring).

j. disease-specific strategies and tools to improve exercise tolerance (e.g., breathing techniques, insulin pump use, prophylactic nitroglycerin).

k. behavioral strategies for improving exercise adoption and maintenance.

l. barriers to exercise compliance and associated strategies (e.g., physical, psychological, environmental).

2) Skill in:

a. communication of exercise techniques, prescription and progression.

b. the assessment of participant symptoms, biomechanics and exercise effort.

B. Provide disease management and risk factor reduction education based on the participant's medical history, needs and goals.

1) Knowledge of:

a. education program development based on participant's medical history, needs and goals.

b. methods to educate participant in risk factor reduction.

c. published national standards on risk factors for cardiovascular, pulmonary and metabolic disease.

d. risk factor reduction programs and alternative community resources (e.g., dietary counseling/Weight Watchers®, smoking cessation, physical therapy/back care).

e. strategies to improve participant compliance to risk factor reduction.

f. goal development strategies.

g. counseling techniques.

h. validated tools for measurement of psychosocial health status (e.g., SF-36, strait-trait anxiety, Beck depression).

i. psychological issues associated with acute and chronic illness (e.g., anxiety, depression, social isolation, suicidal ideation).

j. outcome evaluation methods (e.g., AACVPR outcomes model).

2) Skill in:

a. communicating with participants from a wide variety of backgrounds.

b. selection of participant outcome parameters.

C. Create a positive environment for participant adherence and outcomes by incorporating effective motivational skills, communication techniques and behavioral strategies.

1) Knowledge of:

a. current behavior facilitation theories (e.g., health-belief model, transtheoretical model).

b. behavioral strategies and coaching methods for improving exercise adoption and maintenance.

c. communication strategies that foster a positive environment.

d. methods to educate participant in motivational skills and behavioral strategies.

e. barriers to exercise compliance (e.g., physical, psychological, environmental).

f. community resources available for participant use following discharge from the program.

D. Collaborate and consult with health care professionals to address clinical issues and provide referrals to optimize participant outcomes.

1) Knowledge of:

a. cardiovascular, pulmonary and metabolic pathologies, clinical progression, diagnostic testing, medical regimens and treatment procedures.

b. techniques to determine participant's medical history through available documentation.

c. commonly used medication for cardiovascular, pulmonary and metabolic diseases.

d. tools for measuring clinical exercise tolerance (e.g., heart rate, glucometry, subjective rating scales).

e. risk factor reduction programs and alternative community resources (e.g., dietary counseling/Weight Watchers®, smoking cessation, physical therapy/back care).

f. psychological issues associated with acute and chronic illness (e.g., anxiety, depression, suicidal ideation).

g. assessment tools to measure psychosocial health status.

h. accepted methods of referral.

i. community resources available for participant use following program discharge.

2) Skill in:

a. collaborative decision making.

b. interpretation of psychosocial assessment tools.

Domain V: Legal and Professional Considerations

Associated Job Tasks

A. Evaluate the exercise environment to minimize risk and optimize safety by following routine inspection procedures based on established facility and industry standards and guidelines.

1) Knowledge of:

a. government and industry standards and guidelines (e.g., AACVPR, HIPAA, OHSA (Occupational Health and Safety Administration).

b. the operation, calibration and maintenance of exercise equipment.

B. Perform regular inspections of emergency equipment and practice emergency procedures (e.g., crash cart, advanced cardiac life support procedures, activation of emergency medical system).

1) Knowledge of:

a. standards of practice during emergency situations (e.g., American Heart Association).

b. local and institutional procedures for activation of the emergency medical system.

c. standards for inspection of emergency medical equipment.

2) Skill in:

a. the application of basic life support procedures and external defibrillator use.

C. Promote awareness and accountability and minimize risk by informing participants of safety procedures, self-monitoring of exercise and related symptoms.

1) Knowledge of:

a. signs and symptoms of exercise intolerance.

b. the timing of daily activities with exercise (e.g., medications, meals, insulin/glucose monitoring).

c. commonly used medications for cardiovascular, pulmonary and metabolic diseases.

d. communication techniques to ensure safety in participant's self-monitoring and symptom management.

e. contraindicated and higher risk exercises, and proper exercise form to minimize risk.

2) Skill in:

a. the instruction and modification of exercises to minimize risk of injury.

D. Comply with Health Insurance Portability and Accountability Act (HIPAA) laws and industry-accepted professional, ethical and business standards in order to maintain confidentiality, optimize safety, and reduce liability.

1) Knowledge of:

a. HIPAA regulations relative to documentation and protecting patient privacy (e.g., written and electronic medical records).

b. the use and limitations of informed consent.

c. advanced directives and implications for rehabilitation programs.

d. professional responsibilities and their implications related to liability and negligence.

E. Promote a positive image of the program by engaging in healthy lifestyle practices.

1) Knowledge of:

a. common sources of health information, education and promotion techniques.

2) Skill in:

a. the practice and demonstration of a healthy lifestyle.

F. Select and participate in continuing education programs that enhance knowledge and skills on a continuing basis, maximize effectiveness and increase professionalism in the field.

1) Knowledge of:

a. continuing education opportunities as required for maintenance of professional credentials.

b. total quality management (TQM) and continuous quality improvement (CQI) concepts and application to personal professional growth.