

INSTITUTIONAL COMPETENCIES MATCHING FORM

Applied Exercise Physiology

	Performance Domains and Associated Job Tasks	Course prefix, number and name Example Course Title: MOV 304 Physiology of Activity
	DOMAIN I: PATIENT/CLIENT ASSESSMENT A. Determine and obtain the necessary physician referral and medical records to assess the potential participant	
I.A.1.a	Knowledge of the procedure to obtain informed consent from participant to meet legal requirements.	CIEJ6035 - CIEJ6205
I.A.1.b	Knowledge of information and documentation required for program participation.	CIEJ6035 – EDUC6627
I.A.1.c	Knowledge of the procedure to obtain physician referral and medical records required for program participation.	CIEJ6035 - EDUC6627
I.A.1.d	Knowledge of the procedure to obtain participant’s medical history through available documentation.	CIEJ6035 – CIEJ6205
I.A.2.a	Skill in assessing participant physician referral and medical records to determine program participation status.	CIEJ6035 – EDUC6627
	DOMAIN I: PATIENT/CLIENT ASSESSMENT 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.	
I.B.1.a	Knowledge of normal cardiovascular, pulmonary and metabolic anatomy and physiology.	CIEJ6015
I.B.1.b	Knowledge of cardiovascular, pulmonary and metabolic pathologies, clinical progression, diagnostic testing and medical regimens/procedures.	EDUC6627
I.B.1.c	Knowledge of instructional techniques to assess participant’s expectations and goals.	CIEJ6206
I.B.1.d	Knowledge of commonly used medication for cardiovascular, pulmonary and metabolic diseases.	EDUC6627
I.B.1.e	Knowledge of the effects of physical inactivity, including bed rest, and methods to counteract these changes.	CIEJ6015
I.B.1.f	Knowledge of normal physiologic responses to exercise.	CIEJ6015
I.B.1.g	Knowledge of abnormal responses/signs/symptoms to exercise associated with different pathologies (e.g., cardiovascular, pulmonary, metabolic).	EDUC6627
I.B.1.h	Knowledge of anthropometric measurements and their interpretation.	CIEJ6016 – CIEJ6035
I.B.1.i	Knowledge of normal 12-lead and telemetry ECG interpretation.	EDUC6627
I.B.1.j	Knowledge of interpretation of ECGs for abnormalities (e.g., arrhythmias, blocks, ischemia, infarction).	EDUC6627
I.B.1.k	Knowledge of normal and abnormal heart and lung sounds.	EDUC6627
I.B.1.l	Knowledge of pertinent areas of a participant’s medical history (e.g., any symptoms since their procedure, description of discomfort/pain, orthopedic issues).	CIEJ6035 – EDUC6627
I.B.1.m	Knowledge of validated tools for measurement of psychosocial health status.	CIEJ6206
I.B.1.n	Knowledge of a variety of behavioral assessment tools (e.g., SF-36, health-related quality of life, Chronic Respiratory Disease Questionnaire) and strategies for their use.	CIEJ6206
I.B.1.o	Knowledge of psychological issues associated with acute and chronic illness (e.g., anxiety, depression, social isolation, suicidal ideation).	CIEJ6206
I.B.1.p	Knowledge of participant-centered goal setting.	CIEJ6206
I.B.1.q	Knowledge of functional and diagnostic exercise testing methods, including symptom-limited maximal and submaximal aerobic testing.	CIEJ6035 – EDUC6627
I.B.1.r	Knowledge of indications and contraindications to exercise testing.	CIEJ6035 – EDUC6627
I.B.1.s	Knowledge of normal and abnormal (i.e., signs/symptoms) endpoints for termination of exercise testing.	CIEJ6035 – EDUC6627

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APPLIED EXERCISE PHYSIOLOGY

I.B.1.t	Knowledge of testing and interpretation of muscle strength/endurance and flexibility.	CIEJ6035
I.B.1.u	Knowledge of 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).	CIEJ6015
I.B.2.a	Skill in auscultation methods for common cardiopulmonary abnormalities.	EDUC6627
I.B.2.b	Skill in data collection during baseline intake assessment.	CIEJ6016 - CIEJ6035
I.B.2.c	Skill in assessment and interpretation of information collected during the baseline intake assessment.	CIEJ6035 - EDUC6627
I.B.2.d	Skill in formulating an exercise program based upon the information collected during the baseline intake assessment.	CIEJ6045
I.B.2.e	Skill in selection, application and monitoring of exercise testing for healthy and patient populations.	CIEJ6035 - EDUC6627
I.B.2.f	Skill in muscle strength, endurance and flexibility assessments for healthy and patient populations.	CIEJ6035
I.B.2.g	Skill in patient preparation and ECG electrode application for resting and exercise ECGs.	EDUC6627 - CIEJ6016 - CIEJ6035
	DOMAIN I: PATIENT/CLIENT ASSESSMENT C. Evaluate the participant's risk to ensure safe participation and determine level of monitoring/supervision in a preventive or rehabilitative exercise program.	
I.C.1.a	Knowledge of applied exercise physiology principles.	EDUC6627 - CIEJ6015
I.C.1.b	Knowledge of cardiovascular, pulmonary and metabolic pathologies, their clinical progression, diagnostic testing and medical regimens/procedures to treat.	EDUC6627
I.C.1.c	Knowledge of ACSM's pre-participation screening algorithm.	CIEJ6035, EDUC6627
I.C.1.d	Knowledge of 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.	CIEJ6035, EDUC6627
I.C.1.e	Knowledge of indications and contraindications to exercise testing.	CIEJ6035, EDUC6627
I.C.1.f	Knowledge of functional and diagnostic exercise testing methods, including symptom-limited maximal and submaximal aerobic testing.	CIEJ6035, EDUC6627
I.C.1.g	Knowledge of interpretation of ECGs for abnormalities (e.g., arrhythmias, blocks, ischemia, infarction).	EDUC6627
I.C.1.h	Knowledge of normal and abnormal (i.e., signs/symptoms) endpoints for termination of exercise testing.	CIEJ6035 - EDUC6627
I.C.1.i	Knowledge of testing and interpretation of muscle strength/endurance and flexibility.	CIEJ6035
I.C.1.j	Knowledge of commonly used medication for cardiovascular, pulmonary and metabolic diseases.	EDUC6627
I.C.1.k	Knowledge of 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).	EDUC6627
I.C.2.a	Skill in risk stratification using established guidelines (ACSM, AHA vs. informal).	CIEJ6035, EDUC6627
I.C.2.b	Skill in selection, application and monitoring of exercise tests for apparently healthy participants and those with chronic disease.	CIEJ6035, EDUC6627
I.C.2.c	Skill in ECG interpretation and interpreting exercise test results.	EDUC6627
	DOMAIN II: EXERCISE PRESCRIPTION A. Develop a clinically appropriate exercise prescription using all available information (e.g., clinical and physiological status, goals and behavioral assessment).	
II.A.1.a	Knowledge of applied exercise physiology principles.	CIEJ6015
II.A.1.b	Knowledge of the FITT (Frequency, Intensity, Time, Type) principle for aerobic, muscular fitness /resistance training and flexibility exercise prescription.	CIEJ6045
II.A.1.c	Knowledge of cardiovascular, pulmonary and metabolic pathologies, their clinical progression, diagnostic testing and medical regimens/procedures to treat.	EDUC6627
II.A.1.d	Knowledge of the effects of physical inactivity, including bed rest, and methods to counteract these changes.	CIEJ6015

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II.A.1.e	Knowledge of normal physiologic responses to exercise.	CIEJ6015
II.A.1.f	Knowledge of abnormal responses/signs/symptoms to exercise associated with different pathologies (e.g., cardiovascular, pulmonary, metabolic).	EDUC6627
II.A.1.g	Knowledge of validated tools of measurement of psychosocial health status.	CIEJ 6206
II.A.1.h	Knowledge of functional and diagnostic exercise testing methods, including symptom-limited maximal and submaximal aerobic testing.	CIEJ6035, EDUC6627
II.A.1.i	Knowledge of normal and abnormal (i.e., signs/symptoms) endpoints for termination of exercise testing.	CIEJ6035, EDUC6627
II.A.1.j	Knowledge of tests to assess and interpret muscle strength/endurance and flexibility.	CIEJ6035 – EDUC6627
II.A.1.k	Knowledge of commonly used medication for cardiovascular, pulmonary and metabolic diseases, and their effect on exercise prescription.	CIEJ6045, EDUC6627
II.A.1.l	Knowledge of exercise principles (prescription, progression/maintenance and supervision) for apparently healthy participants and participants with cardiovascular, pulmonary, and/or metabolic diseases.	CIEJ6045 – EDUC6627
II.A.1.m	Knowledge of appropriate mode, volume and intensity of exercise to produce desired outcomes for apparently healthy participants and those with cardiovascular, pulmonary and metabolic diseases.	CIEJ6045 – EDUC6627
II.A.1.n	Knowledge of the application of metabolic calculations.	CIEJ6016 - CIEJ6045
II.A.1.o	Knowledge of goal development strategies.	CIEJ6206
II.A.1.p	Knowledge of behavioral assessment tools (e.g., SF-36, health-related quality of life, Chronic Respiratory Disease Questionnaire) and strategies for use.	CIEJ6206
II.A.1.q	Knowledge of psychological issues associated with acute and chronic illness (e.g., anxiety, depression, social isolation, suicidal ideation).	CIEJ6206
II.A.2.a	Skill in interpretation of functional and diagnostic exercise testing with applications to exercise prescription.	CIEJ6045, EDUC6627
II.A.2.b	Skill in interpretation of muscular strength/endurance testing with applications to exercise prescription.	CIEJ6045
II.A.2.c	Skill in developing an exercise prescription based on a participant's clinical status.	CIEJ6045
	DOMAIN II: EXERCISE PRESCRIPTION B. Review the exercise prescription and exercise program with the participant, including home exercise, compliance and participant's expectations and goals.	
II.B.1.a	Knowledge of applied exercise physiology principles.	CIEJ6015
II.B.1.b	Knowledge of normal physiologic responses to exercise.	CIEJ6015
II.B.1.c	Knowledge of abnormal responses/signs/symptoms to exercise associated with different pathologies (e.g., cardiovascular, pulmonary, metabolic).	EDUC6627
II.B.1.d	Knowledge of anthropometric measurements and their interpretation.	CIEJ6016, CIEJ6035
II.B.1.e	Knowledge of participant-centered goal setting.	CIEJ6206
II.B.1.f	Knowledge of exercise principles (prescription, progression/maintenance and supervision) for apparently healthy participants and participants with cardiovascular, pulmonary, and/or metabolic diseases.	CIEJ6045
II.B.1.g	Knowledge of the FITT (Frequency, Intensity, Time, Type) principle for aerobic, muscular fitness /resistance training and flexibility exercise prescription.	CIEJ6045
II.B.1.h	Knowledge of appropriate mode, volume and intensity of exercise to produce desired outcomes for apparently healthy participants and those with cardiovascular, pulmonary and metabolic diseases.	CIEJ6045
II.B.1.i	Knowledge of the application of metabolic calculations.	CIEJ6045
II.B.1.j	Knowledge of goal development strategies.	CIEJ6206
II.B.1.k	Knowledge of terminology appropriate to provide the client with education regarding their exercise prescription.	CIEJ6045
II.B.1.l	Knowledge of instructional techniques for safe and effective prescription implementation and understanding by participant.	CIEJ6045
II.B.1.m	Knowledge of the timing of daily activities with exercise (e.g., medications, meals, insulin/glucose monitoring).	CIEJ6045

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II.B.1.n	Knowledge of disease-specific strategies and tools to improve tolerance of exercise (e.g., breathing techniques, insulin pump use and adjustments, prophylactic nitroglycerin).	CIEJ6045
II.B.1.o	Knowledge of instructional strategies for improving exercise adoption and maintenance.	CIEJ6206
II.B.1.p	Knowledge of common barriers to exercise compliance and strategies to address these (e.g., physical, psychological, environmental, demographic).	CIEJ6206
II.B.1.q	Knowledge of instructional techniques to assess participant's expectations and goals.	CIEJ6206
II.B.1.r	Knowledge of risk factor reduction programs and alternative community resources (e.g., dietary counseling, weight management/Weight Watchers®, smoking cessation, stress management, physical therapy/back care).	CIEJ6045 - CIEJ6205
II.B.2.a	Skill in communicating with participants from a wide variety of educational backgrounds.	CIEJ6045
II.B.2.b	Skill in effectively communicating exercise prescription and exercise techniques.	CIEJ6045
II.B.2.c	Skill in applying various models to optimize patient compliance and adherence in order to achieve patient goals.	CIEJ6206
	DOMAIN II: EXERCISE PRESCRIPTION C. Instruct the participant in the safe and effective use of exercise modalities, exercise plan, reporting symptoms and class organization.	
II.C.1.a	Knowledge of applied exercise physiology principles.	CIEJ6015
II.C.1.b	Knowledge of normal physiologic responses to exercise.	CIDJ6015
II.C.1.c	Knowledge of abnormal responses/signs/symptoms to exercise associated with different pathologies (e.g., cardiovascular, pulmonary, metabolic).	EDUC6627
II.C.1.d	Knowledge of the timing of daily activities with exercise (e.g., medications, meals, insulin/glucose monitoring).	CIEJ6045
II.C.1.e	Knowledge of commonly used medication for cardiovascular, pulmonary and metabolic diseases.	EDUC6627
II.C.1.f	Knowledge of lay terminology for explanation of exercise prescription.	CIEJ6045
II.C.1.g	Knowledge of the operation of various exercise equipment/modalities.	CIEJ6045
II.C.1.h	Knowledge of proper biomechanical technique for exercise (e.g., gait assessment, proper weight lifting form).	CIEJ6045 – EDUC6627
II.C.1.i	Knowledge of muscle strength/endurance and flexibility modalities and their safe application and instruction.	CIEJ6045 – EDUC6627
II.C.1.j	Knowledge of tools to measure exercise tolerance (heart rate/pulse, blood pressure, glucometry, oximetry, rating of perceived exertion, dyspnea scale, pain scale).	CIEJ6045, CIEJ6035
II.C.1.k	Knowledge of principals and application of exercise session organization.	CIEJ6045
II.C.2.a	Skill in the observational assessment of participants.	CIEJ 6035 - CIEJ6045
II.C.2.b	Skill in communicating with participants from a wide variety of educational backgrounds.	CIEJ6045, CIEJ6206
II.C.2.c	Skill in communicating with participants regarding the proper organization of exercise sessions.	CIEJ6045, CIEJ6206
	DOMAIN III: PROGRAM IMPLEMENTATION AND ONGOING SUPPORT A. Implement the program (e.g., exercise prescription, education, counseling, goals).	
III.A.1.a	Knowledge of abnormal responses/signs/symptoms to exercise associated with different pathologies (i.e., cardiovascular, pulmonary, metabolic).	CIEJ6045, EDUC6627
III.A.1.b	Knowledge of normal and abnormal 12-lead and telemetry ECG interpretation.	EDUC6627
III.A.1.c	Knowledge of the FITT principle (Frequency, Intensity, Time, Type) for aerobic, muscular fitness /resistance training and flexibility exercise prescription.	CIEJ6045
III.A.1.d	Knowledge of exercise progression/maintenance and supervision for apparently healthy participants and participants with cardiovascular, pulmonary, and/or metabolic diseases.	CIEJ6045
III.A.1.e	Knowledge of disease-specific strategies and tools to improve tolerance of exercise (e.g., breathing techniques, insulin pump use and adjustments, prophylactic nitroglycerin).	CIEJ6045
III.A.1.f	Knowledge of instructional strategies for improving exercise adoption and maintenance.	CIEJ6206

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III.A.1.g	Knowledge of strategies to maximize exercise compliance (e.g., overcoming barriers, values clarification, goals setting).	CIEJ6206
III.A.1.h	Knowledge of the operation of various exercise equipment/modalities.	CIEJ6045 - CIEJ6205
III.A.1.i	Knowledge of proper biomechanical technique for exercise (e.g., gait, weight lifting form).	CIEJ6045 - EDUC6627
III.A.1.j	Knowledge of tools to measure clinical exercise tolerance (e.g., heart rate, glucometry, oximetry, subjective assessments).	CIEJ6045 - CIEJ6016 - CIEJ6035
III.A.1.k	Knowledge of the principles and application of exercise session organization.	CIEJ6045
III.A.1.l	Knowledge of commonly used medications for cardiovascular, pulmonary and metabolic diseases.	EDUC6627
III.A.1.m	Knowledge of exercise program monitoring (e.g., telemetry, oximetry, glucometry).	CIEJ6045
III.A.1.n	Knowledge of principles and application of muscular strength/endurance and flexibility training.	CIEJ6045
III.A.1.o	Knowledge of methods to assess participant's educational goals.	CIEJ6206
III.A.1.p	Knowledge of counseling techniques to optimize participant's disease management, risk reduction and goal attainment.	CIEJ6206
III.A.2.a	Skill in educating participants on the use and effects of medications.	EDUC6627 - CIEJ6045 - CIEJ6035
III.A.2.b	Skill in the application of metabolic calculations.	CIEJ6045 - CIEJ6016
III.A.2.c	Skill in communicating the exercise prescription and related exercise programming techniques.	CIEJ6045
III.A.2.d	Skill in observation of clients for problems associated with comprehension and performance of their exercise program.	CIEJ6045
III.A.2.e	Skill in muscular strength/endurance and flexibility training.	CIEJ6045
	DOMAIN III: PROGRAM IMPLEMENTATION AND ONGOING SUPPORT 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.	
III.B.1.a	Knowledge of cardiovascular, pulmonary and metabolic pathologies, their clinical progression, diagnostic testing and medical regimens/procedures to treat.	EDUC6627
III.B.1.b	Knowledge of normal and abnormal exercise responses, signs and symptoms associated with different pathologies (i.e., cardiovascular, pulmonary, metabolic).	EDUC6627
III.B.1.c	Knowledge of normal and abnormal 12-lead and telemetry ECG interpretation.	EDUC6627
III.B.1.d	Knowledge of normal and abnormal heart and lung sounds.	EDUC6627, CIEJ6016
III.B.1.e	Knowledge of the components of a participant's medical history necessary to screen during program participation.	CIEJ6045
III.B.1.f	Knowledge of appropriate mode, volume and intensity of exercise to produce desired outcomes for apparently healthy participants and those with cardiovascular, pulmonary and metabolic diseases.	CIEJ6045
III.B.1.g	Knowledge of psychological issues associated with acute and chronic illness (e.g., depression, social isolation, suicidal ideation).	CIEJ6206
III.B.1.h	Knowledge of the timing of daily activities with exercise (e.g., medications, meals, insulin/glucose monitoring).	EDUC6627, CIEJ6045
III.B.1.i	Knowledge of how medications or missed dose(s) of medications impact exercise and its progression.	EDUC6627, CIEJ6045
III.B.1.j	Knowledge of methods to provide participant feedback relative to their exercise, general program participation and clinical progress.	CIEJ6045 - EDUC6627
III.B.2.a	Skill in auscultation methods for common cardiovascular and pulmonary abnormalities.	EDUC6627 – CIEJ6035
III.B.2.b	Skill in the assessment of normal and abnormal response to exercise.	CIEJ6045, CIEJ6035
III.B.2.c	Skill in adjusting the exercise program based on participant's signs and symptoms, feedback and exercise response.	CIEJ6045 – EDUC6627
III.B.2.d	Skill in communicating exercise techniques, program goals and clinical monitoring and progress.	CIEJ6045, CIEJ6206
III.B.2.e	Skill in applying and interpreting tools for clinical assessment (e.g., telemetry, oximetry and glucometry, perceived rating scales).	CIEJ6045 - CIEJ6016 – EDUC6627

	DOMAIN III: PROGRAM IMPLEMENTATION AND ONGOING SUPPORT C. Reassess and update the program (e.g., exercise, education and client goals) based upon the participant's progress and feedback.	
III.C.1.a	Knowledge of techniques to determine participant's medical history through available documentation.	CIEJ6035, EDUC6627
III.C.1.b	Knowledge of normal physiologic responses to exercise.	CIEJ6015
III.C.1.c	Knowledge of abnormal responses/signs/symptoms to exercise associated with different pathologies (e.g., cardiovascular, pulmonary, metabolic).	CIEJ6045 - EDUC6627 – CIEJ6035
III.C.1.d	Knowledge of participant's educational and behavioral goals and methods to obtain them.	CIEJ6206
III.C.1.e	Knowledge of counseling techniques focusing on participant goal attainment.	CIEJ6206
III.C.1.f	Knowledge of exercise progression/maintenance and supervision for apparently healthy participants and participants with cardiovascular, pulmonary, and/or metabolic diseases.	CIEJ6045 - EDUC6627
III.C.1.g	Knowledge of appropriate mode, volume and intensity of exercise to produce desired outcomes for apparently healthy participants and those with cardiovascular, pulmonary and metabolic diseases.	CIEJ6045 – EDUC6627
III.C.1.h	Knowledge of strategies to maximize exercise compliance (e.g., overcoming barriers, values clarification, goals setting).	CIEJ6206
III.C.1.i	Knowledge of risk factor reduction programs and alternative community resources (e.g., dietary counseling/Weight Watchers", smoking cessation, physical therapy/back care).	CIEJ6045 - CIEJ6205
III.C.1.j	Knowledge of proper biomechanical technique for exercise (e.g., gait, weight lifting form).	CIEJ6045 – EDUC6627
III.C.1.k	Knowledge of clinical monitoring of the exercise program (e.g., telemetry, oximetry and glucometry, adjusting exercise intensity).	CIEJ6045 - CIEJ6016 – CIEJ6035
III.C.1.l	Knowledge of commonly used medication for cardiovascular, pulmonary and metabolic diseases.	EDUC6627 - CIEJ6045
III.C.1.m	Knowledge of the application and instruction of muscle strength/endurance and flexibility modalities.	CIEJ6045
III.C.1.n	Knowledge of modification of the exercise prescription for clinical changes and attainment of participant's goals.	CIEJ6045
III.C.1.o	Knowledge of community resources available to the participant following discharge from the program.	CIEJ6045 - CIEJ6205
III.C.2.a	Skill in modifying the exercise program based on participant's signs and symptoms, feedback and exercise responses.	CIEJ6045
III.C.2.b	Skill in utilizing metabolic calculations and clinical data to adjust the exercise prescription.	CIEJ6045 - CIEJ6016
III.C.2.c	Skill in observation of participant for problems associated with comprehension and performance of their exercise program.	CIEJ6045
III.C.2.d	Skill in communicating exercise techniques, program goals and clinical monitoring and progress.	CIEJ6045
III.C.2.e	Skill in applying and interpreting tools for clinical assessment (e.g., telemetry, oximetry and glucometry, perceived rating scales).	CIEJ6045 - CIEJ6016 – CIEJ6035
	DOMAIN III: PROGRAM IMPLEMENTATION AND ONGOING SUPPORT D. Maintain participant records to document progress and clinical status.	
III.D.1.a	Knowledge of participant's medical history through available documentation.	EDUC6627 – CIEJ6035 – CIEJ6045
III.D.1.b	Knowledge of cardiovascular, pulmonary and metabolic pathologies, diagnostic testing and medical management regimens and procedures.	EDUC6627
III.D.1.c	Knowledge of commonly used medication for cardiovascular, pulmonary and metabolic diseases.	EDUC6627
III.D.1.d	Knowledge of HIPAA (Health Insurance Portability and Accountability Act) regulations relative to documentation.	EDUC6627 - CIEJ6205
III.D.1.e	Knowledge of medical documentation (e.g., progress notes, SOAP notes).	EDUC6627 - CIEJ6205
III.D.2.a	Skill in applying knowledge of medical documentation and regulations.	EDUC6627 - CIEJ6205

III.D.2.b	Skill in summarizing participants' exercise sessions, outcomes and clinical issues into an appropriate medical record.	CIEJ6045
	DOMAIN IV: LEADERSHIP & COUNSELING A. Educate the participant about performance and progression of aerobic, strength and flexibility exercise programs.	
IV.A.1.a	Knowledge of physiological responses, signs, and symptoms to exercise associated with different pathologies (i.e., cardiovascular, pulmonary, metabolic).	EDUC6627, CIEJ6045
IV.A.1.b	Knowledge of exercise (as written above) principles (prescription, progression/maintenance and supervision) for apparently healthy participants and participants with cardiovascular, pulmonary, and/or metabolic diseases.	CIEJ6045
IV.A.1.c	Knowledge of exercise progression, maintenance and supervision for apparently healthy participants and participants with cardiovascular, pulmonary, and/or metabolic diseases.	CIEJ6045
IV.A.1.d	Knowledge of tools for measuring clinical exercise tolerance (e.g., heart rate, glucometry, subjective rating scales).	CIEJ6045 - CIEJ6016 – CIEJ6035
IV.A.1.e	Knowledge of the application and instruction of muscle strength/endurance and flexibility modalities.	CIEJ6045
IV.A.1.f	Knowledge of exercise modalities and the operation of associated equipment.	CIEJ6045
IV.A.1.g	Knowledge of proper biomechanical techniques (e.g., gait assessment, resistance training form).	CIEJ6045
IV.A.1.h	Knowledge of methods to educate participant in proper exercise programming and progression.	CIEJ6045
IV.A.1.i	Knowledge of the timing of daily activities with exercise (e.g., medications, meals, insulin/ glucose monitoring).	EDUC 6627 - CIEJ6045
IV.A.1.j	Knowledge of disease-specific strategies and tools to improve exercise tolerance (e.g., breathing techniques, insulin pump use, prophylactic nitroglycerin).	CIEJ6045 - CIEJ6016 – EDUC6627
IV.A.1.k	Knowledge of behavioral strategies for improving exercise adoption and maintenance.	CIEJ6206
IV.A.1.l	Knowledge of barriers to exercise compliance and associated strategies (e.g., physical, psychological, environmental).	CIEJ6206
IV.A.2.a	Skill in communication of exercise techniques, prescription and progression.	CIEJ6045
IV.A.2.b	Skill in the assessment of participant symptoms, biomechanics and exercise effort.	CIEJ6045 – CIEJ6035
	DOMAIN IV: LEADERSHIP & COUNSELING B. Provide disease management and risk factor reduction education based on the participant's medical history, needs and goals.	
IV.B.1.a	Knowledge of education program development based on participant's medical history, needs and goals.	EDUC6627 - CIEJ6045
IV.B.1.b	Knowledge of methods to educate participant in risk factor reduction.	CIEJ6045 - CIEJ6206
IV.B.1.c	Knowledge of published national standards on risk factors for cardiovascular, pulmonary and metabolic disease.	CIEJ6035, CIEJ6045
IV.B.1.d	Knowledge of risk factor reduction programs and alternative community resources (e.g., dietary counseling/Weight Watchers®, smoking cessation, physical therapy/back care).	CIEJ6205
IV.B.1.e	Knowledge of strategies to improve participant compliance to risk factor reduction.	CIEJ6206
IV.B.1.f	Knowledge of goal development strategies.	CIEJ6206
IV.B.1.g	Knowledge of counseling techniques.	CIEJ6206
IV.B.1.h	Knowledge of validated tools for measurement of psychosocial health status (e.g., SF-36, trait-trait anxiety, Beck depression).	CIEJ6206
IV.B.1.i	Knowledge of psychological issues associated with acute and chronic illness (e.g., anxiety, depression, social isolation, suicidal ideation).	CIEJ6206
IV.B.1.j	Knowledge of outcome evaluation methods (e.g., AACVPR outcomes model).	CIEJ6206
IV.B.2.a	Skill in communicating with participants from a wide variety of backgrounds.	CIEJ6206
IV.B.2.b	Skill in selection of participant outcome parameters.	CIEJ6206

	DOMAIN IV: LEADERSHIP & COUNSELING C. Create a positive environment for participant adherence and outcomes by incorporating effective motivational skills, communication techniques and behavioral strategies.	
IV.C.a	Knowledge of current behavior facilitation theories (e.g., health-belief model, transtheoretical model).	CIEJ6206
IV.C.b	Knowledge of behavioral strategies and coaching methods for improving exercise adoption and maintenance.	CIEJ6206
IV.C.c	Knowledge of communication strategies that foster a positive environment.	CIEJ6206
IV.C.d	Knowledge of methods to educate participant in motivational skills and behavioral strategies.	CIEJ6206
IV.C.e	Knowledge of barriers to exercise compliance (e.g., physical, psychological, environmental).	CIEJ6206
IV.C.f	Knowledge of community resources available for participant use following discharge from the program.	CIEJ6205, CIEJ6206
	DOMAIN IV: LEADERSHIP & COUNSELING D. Collaborate and consult with health care professionals to address clinical issues and provide referrals to optimize participant outcomes.	
IV.D.1.a	Knowledge of cardiovascular, pulmonary and metabolic pathologies, clinical progression, diagnostic testing, medical regimens and treatment procedures.	EDUC6627
IV.D.1.b	Knowledge of techniques to determine participant's medical history through available documentation.	EDUC6627 - CIEJ6035
IV.D.1.c	Knowledge of commonly used medication for cardiovascular, pulmonary and metabolic diseases.	EDUC6627
IV.D.1.d	Knowledge of tools for measuring clinical exercise tolerance (e.g., heart rate, glucometry, subjective rating scales).	CIEJ 6035 – CIEJ6045
IV.D.1.e	Knowledge of risk factor reduction programs and alternative community resources (e.g., dietary counseling/Weight Watchers*, smoking cessation, physical therapy/back care).	CIEJ6205
IV.D.1.f	Knowledge of psychological issues associated with acute and chronic illness (e.g., anxiety, depression, suicidal ideation).	CIEJ6206
IV.D.1.g	Knowledge of assessment tools to measure psychosocial health status.	CIEJ6206
IV.D.1.h	Knowledge of accepted methods of referral.	CIEJ6035
IV.D.1.i	Knowledge of community resources available for participant use following program discharge.	CIEJ6206
IV.D.2.a	Skill in collaborative decision making.	CIEJ6206
IV.D.2.b	Skill in interpretation of psychosocial assessment tools.	CIEJ6206
	DOMAIN V: LEGAL AND PROFESSIONAL CONSIDERATIONS 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.	
V.A.1.a	Knowledge of government and industry standards and guidelines (e.g., AACVPR, HIPAA, OSHA (Occupational Health and Safety Administration)).	CIEJ6205
V.A.1.b	Knowledge of the operation, calibration and maintenance of exercise equipment.	CIEJ6205 - CIEJ 6016 – CIEJ6035
	DOMAIN V: LEGAL AND PROFESSIONAL CONSIDERATIONS 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).	
V.B.1.a	Knowledge of standards of practice during emergency situations (e.g., American Heart Association).	CPR
V.B.1.b	Knowledge of local and institutional procedures for activation of the emergency medical system.	CIEJ6205
V.B.1.c	Knowledge of standards for inspection of emergency medical equipment.	CIEJ6205
V.B.2.a	Skill in the application of basic life support procedures and external defibrillator use.	CPR-AED

	DOMAIN V: LEGAL AND PROFESSIONAL CONSIDERATIONS C. Promote awareness and accountability and minimize risk by informing participants of safety procedures, self-monitoring of exercise and related symptoms.	
V.C.1.a	Knowledge of signs and symptoms of exercise intolerance.	CIEJ6035 – CIEJ6045
V.C.1.b	Knowledge of the timing of daily activities with exercise (e.g., medications, meals, insulin/glucose monitoring).	EDUC6627
V.C.1.c	Knowledge of commonly used medications for cardiovascular, pulmonary and metabolic diseases.	EDUC6627
V.C.1.d	Knowledge of communication techniques to ensure safety in participant's self-monitoring and symptom management.	CIEJ6045 - CIEJ6206
V.C.1.e	Knowledge of contraindicated and higher risk exercises, and proper exercise form to minimize risk.	CIEJ6045
V.C.2.a	Skill in the instruction and modification of exercises to minimize risk of injury.	CIEJ6045
	DOMAIN V: LEGAL AND PROFESSIONAL CONSIDERATIONS 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.	
V.D.1.a	Knowledge of HIPAA regulations relative to documentation and protecting patient privacy (e.g., written and electronic medical records).	CIEJ6205
V.D.1.b	Knowledge of the use and limitations of informed consent.	CIEJ6205 – CIEJ6035 – CIEJ6045
V.D.1.c	Knowledge of advanced directives and implications for rehabilitation programs.	CIEJ6205
V.D.1.d	Knowledge of professional responsibilities and their implications related to liability and negligence.	CIEJ6205
	DOMAIN V: LEGAL AND PROFESSIONAL CONSIDERATIONS E. Promote a positive image of the program by engaging in healthy lifestyle practices.	
V.E.1.a	Knowledge of common sources of health information, education and promotion techniques.	CIEJ6205
V.E.2.a	Skill in the practice and demonstration of a healthy lifestyle.	EDUC6627 - CIEJ6045 - CIEJ6206
	DOMAIN V: LEGAL AND PROFESSIONAL CONSIDERATIONS 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.	
V.F.1.a	Knowledge of continuing education opportunities as required for maintenance of professional credentials.	CIEJ6205
V.F.1.b	Knowledge of total quality management (TQM) and continuous quality improvement (CQI) concepts and application to personal professional growth.	CIEJ6205

PART D

APPLIED EXERCISE PHYSIOLOGY

Laboratory Equipment Matching

The following equipment is considered pertinent to the skill-related Competencies for programs seeking accreditation in Applied Exercise Physiology. In the spaces provided, please identify the equipment the all students within the program will have access to. Additional equipment can be listed in the blank space below.

Equipment	Model/Brand	Number of Units	Location
Cycle ergometer	Monark Ergomedic 894/Monark 868/Kettler Ergoracer	1 of each model	Inside the lab room
Treadmill	Woodway USA/Track Master	1 of each model	Inside the lab room
Skinfold Caliper	Lange/Lafayette/Slim Guide	4 Lange/2 Lafayette/9 Slim Guide/5 no brand	Closet #1 Clipboard #3
<u>Tanita Body Composition Scale</u>	Tanita	1	Inside the lab room
<u>Anthropometer</u>	?	4	<u>Closet #1 Clipboard #1</u>
Tape measures	?	4	
Goniometer	?	4	Closet #1 Clipboard #1
Stadiometer	SECA / Portatil	1 SECA / 1 Portatil	
Blood Pressure Cuffs	?	7	Closet #1 Clipboard #2
Stethoscopes	Litmann	5	Closet #1 Clipboard #2
Heart Rate Monitors	Polar	7	Closet #1 Clipboard #2
Field tests:			
Step Test Box	?	<u>1 Box (9 total pieces)</u>	<u>Inside the lab room</u>
Sit n Reach	?	<u>2</u>	<u>?</u>
Stop Watches	?	<u>6</u>	<u>Closet #1 Clipboard #3</u>
Pulmonary Function (spirometer)			
Strength Training Equipment			
Hand Dinamometer	?	3	
Dumbells	?	3	Closet #1 Clipboard #4
Leg & Back Dinamometer	?	2	
Hand Weights	?	2	
Pool			
Group Exercise Room			
CPR Mannequins			
ECG Simulator	ATRIA 3100	1	Inside the lab room
Electrocardiograph	ATRIA 3100	1	Inside the lab room

PART D

APPLIED EXERCISE PHYSIOLOGY

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END OF COMPETENCIES MATCHING FORM – APPLIED EXERCISE PHYSIOLOGY

COMPETENCIES MATCHING FORM – CLINICAL EXERCISE PHYSIOLOGY

This form is meant to provide guidance for the CoAES in evaluating curricular coverage of the Competencies performance domains and associated job tasks for the ACSM Registered Clinical Exercise Physiologist for programs seeking accreditation in Clinical Exercise Physiology (as per the current edition of *ACSM's Guidelines for Exercise Testing and Prescription*).

Complete the Institutional Competencies Matching Form, identifying the specific course within your curriculum that covers the particular task statement listed. Only list courses that are required of every student within your program, and do not include electives.

For electronic submission, click within the text field (), and type the course name and number as it appears in your university's course catalog.

Institution Contact Information

Date:

Institution Name

Contact Person

Title

Address

Phone -

Fax -

E-mail

Degree Program

Major

Department

Total Number of Students within Program

Average # graduating students: Spring: Summer: Fall:

INSTITUTIONAL COMPETENCIES MATCHING FORM

Clinical Exercise Physiology

	Performance Domains and Associated Job Tasks	Course prefix, number and name Example Course Title: MOV 304 Physiology of Activity
	DOMAIN I: PATIENT ASSESSMENT A. Assess a patients's medical record for information related to their visit.	
I.A.1.a	Knowledge of he procedure to obtain patient's medical history through available documentation.	EDUC6627
I.A.1.b	Knowledge of the necessary medical records needed to properly assess a patient, given their diagnosis and/or reason for referral.	CIEJ6035
I.A.1.c	Knowledge of the procedure to obtain physician referral and medical records required for program participation.	EDUC6627, CIEJ6035
I.A.1.d	Knowledge of information and documentation required for program participation.	EDUC6627, CIEJ6035
I.A.1.e	Knowledge of the epidemiology, pathophysiology, progression, risk factors, key clinical findings, and treatments of chronic diseases.	EDUC6627, CIEJ6045
I.A.1.f	Knowledge of the techniques (e.g., lab results, diagnostic tests) used to diagnose chronic diseases, their indications, limitations, risks, normal and abnormal results.	EDUC6627, CIEJ6035
I.A.1.g	Knowledge of medical charting, terminology and common acronyms.	EDUC6627
I.A.2.a	Skill in interpreting information from medical records in patient care and/or exercise prescription.	CIEJ6045 – EDUC6627
I.A.2.b	Skill in assessing various vital signs.	CIEJ6016, EDUC6627
I.A.2.c	Skill in assessing participant physician referral and/or medical records to determine program participation status.	EDUC6627, CIEJ6045
	DOMAIN I: PATIENT ASSESSMENT B. Interview patient regarding medical hisotry for their visit and reconcile medications.	
I.B.1.a	Knowledge of establishment of rapport through health counseling techniques (e.g., the patient-centered approach), and nonjudgmental positive regard in creation of collaborative partnership.	EDUC6627
I.B.1.b	Knowledge of use of open-ended inquiry, active listening and attention to nonverbal behavior, interest and empathy.	
I.B.1.c	Knowledge of information and documentation required for program participation.	
I.B.1.d	Knowledge of the procedure to obtain informed consent from patient to meet legal requirements.	
I.B.1.e	Knowledge of commonly used medications in patients with chronic diseases, their mechanisms of action, and side effects.	EDUC6627
I.B.1.f	Knowledge of medical charting, terminology and common acronyms.	
I.B.2.a	Skill in administering informed consent.	CIEJ6035
I.B.2.b	Skill in interviewing patient for medical history pertinent to the reason for their visit and reconciling medications.	
I.B.2.c	Skill in active listening and usage of health counseling techniques.	CIEJ6206
I.B.2.d	Skill in data collection during baseline intake assessment.	
I.B.2.e	Skill in proficiency in medical charting.	
	DOMAIN I: PATIENT ASSESSMENT C. Obtain and assess resting biometric data (e.g. height, weight, ECG, artieral oxygen saturation, blood glucose, body composition, spirometry).	

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CLINICAL EXERCISE PHYSIOLOGY

I.C.1.a	Knowledge of best practice-based intake assessment tools and techniques to assess and interpret clinical and health measures (e.g., height, weight, anthropometrics, body mass index, resting energy expenditure).	
I.C.1.b	Knowledge of medical therapies for chronic diseases and their effect on resting vital signs and symptoms.	EDUC6627
I.C.1.c	Knowledge of normal cardiovascular, pulmonary and metabolic anatomy and physiology.	CIEJ6035
I.C.1.d	Knowledge of techniques for assessing signs and symptoms (e.g., peripheral pulses, blood pressure, edema, pain).	CIEJ6035
I.C.1.e	Knowledge of 12-lead and telemetry ECG interpretation for normal sinus rate and rhythm or abnormalities (e.g., arrhythmias, blocks, ischemia, infarction).	EDUC6627
I.C.1.f	Knowledge of ECG changes associated with, but not limited to, drug therapy, electrolyte abnormalities, myocardial injury and infarction, congenital defects, pericarditis, pulmonary embolus and the clinical significance of each.	EDUC6627
I.C.2.a	Skill in administering and interpreting resting biometric data to determine baseline health status.	
I.C.2.b	Skill in preparing a patient and ECG electrode application for resting ECGs.	EDUC6627
I.C.2.c	Skill in assessing vital signs and symptoms at rest.	CIEJ6035
I.C.2.d	Skill in assessing ankle brachial index using a hand-held Doppler	CIEJ 6035
	DOMAIN I: PATIENT ASSESSMENT D. Determine a sufficient level of monitoring/supervision based on a preparticipation health screening.	
I.D.1.a	Knowledge of normal physiologic responses to exercise.	
I.D.1.b	Knowledge of abnormal responses/signs/symptoms to exercise associated with different pathologies (e.g., cardiovascular, pulmonary, metabolic).	
I.D.1.c	Knowledge of pertinent areas of a patient's medical history (e.g., any symptoms since their procedure, description of discomfort/pain, orthopedic issues).	
I.D.1.d	Knowledge of indications and contraindications to exercise testing and training.	
I.D.1.e	Knowledge of current published guidelines for treatment of cardiovascular, pulmonary and metabolic pathologies (e.g., American College of Cardiology/American Heart Association [ACC/AHA] Joint Guidelines, Global Initiative for Chronic Obstructive Lung Disease [GOLD], American Diabetes Association [ADA]).	
I.D.1.f	Knowledge of industry recognized preparticipation health screening practices (e.g., the Physical Activity Readiness Questionnaire for Everyone [PAR-Q+], ACSM's preparticipation screening algorithm).	
I.D.1.g	Knowledge of medical therapies for chronic diseases and their effect on the physiologic response to exercise.	CIEJ6035
I.D.1.h	Knowledge of the timing of daily activities (e.g., medications, dialysis, meals, glucose monitoring) and their effect on exercise in patients with chronic diseases.	
I.D.1.i	Knowledge of abnormal signs and symptoms in apparently healthy individuals and those with chronic disease.	CIEJ6035
I.D.1.j	Knowledge of methods used to obtain a referral for clinical exercise physiology services.	
I.D.2.a	Skill in implementing industry-recognized preparticipation health screening practices.	
I.D.2.b	Skill in administering informed consent.	
I.D.2.c	Skill in selecting an exercise test based on a patient's disease, condition and ability.	
I.D.2.d	Skill in determining risk and level of monitoring of patient using health history, medical history, medical records and additional diagnostic assessments.	
I.D.2.e	Skill in modifying exercise/physical activity program in response to medication use, timing and side effects.	
	DOMAIN I: PATIENT ASSESSMENT E. Assess patient goals, needs and objectives based on health and exercise history, motivation level and physical activity readiness.	
I.E.1.a	Knowledge of patient-centered health counseling techniques with nonjudgmental positive regard.	CIEJ6206
I.E.1.b	Knowledge of assessment of patient goals and exercise history through use of open-ended inquiry, active listening and attention to nonverbal behavior and reflective listening.	CIEJ6206
I.E.1.c	Knowledge of the effects of a sedentary lifestyle, including extended periods of physical inactivity and approaches to counteract these changes.	CIEJ6015

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CLINICAL EXERCISE PHYSIOLOGY

I.E.1.d	Knowledge of behavior modification tools and techniques to assess patient's expectations, goals and motivation level (e.g., health literacy, identification of real and perceived barriers, decisional balance).	CIEJ6206
I.E.1.e	Knowledge of common barriers to exercise compliance and adherence (e.g., physical/disease state, environmental, demographic, vocation).	CIEJ6206
I.E.1.f	Knowledge of known demographic factors related to likelihood of adherence and maintenance of exercise (e.g., age, gender, socioeconomic status, education, ethnicity).	CIEJ6206
I.E.1.g	Knowledge of characteristics associated with poor adherence to healthy behaviors (e.g., low self-efficacy, poor social support).	CIEJ6206
I.E.1.h	Knowledge of psychological issues associated with acute and chronic illness (e.g., anxiety, depression, social isolation, suicidal ideation).	CIEJ6206
I.E.1.i	Knowledge of validated tools for measurement of psychosocial health status.	CIEJ6206
I.E.1.j	Knowledge of a variety of behavioral assessment tools (e.g., SF-36, health-related quality of life, Chronic Respiratory Disease Questionnaire) and strategies for their use.	CIEJ6206
I.E.1.k	Knowledge of recognizing adverse effects of exercise in apparently healthy persons or those with chronic disease.	CIEJ6045
I.E.2.a	Skill in active listening and behavior modification techniques.	CIEJ6206
I.E.2.b	Skill in counseling techniques and strategies to overcome real and perceived barriers.	CIEJ6206
I.E.2.c	Skill in applying health behavior theories and strategies to strengthen patient barriers self-efficacy and optimize compliance and adherence in support of achievement of goals.	CIEJ6206
I.E.2.d	Skill in adapting/modifying an exercise program based on unique needs of a patient.	CIEJ6045
I.E.2.e	Skill in administering commonly used screening tools to evaluate mental health status.	CIEJ6206
DOMAIN II: EXERCISE TESTING		
A. Select, administer and interpret submaximal aerobic exercise tests (e.g., treadmill, step-test, 6-minute walk).		
II.A.1.a	Knowledge of tests to assess submaximal aerobic endurance.	CIEJ6035
II.A.1.b	Knowledge of the acute and chronic responses to aerobic exercise on the function of the cardiovascular, respiratory, musculoskeletal, neuromuscular, metabolic, endocrine and immune systems in trained and untrained individuals.	CIEJ6015
II.A.1.c	Knowledge of the mechanisms underlying the acute and chronic responses to aerobic exercise on the function of the cardiovascular, respiratory, musculoskeletal, neuromuscular, metabolic, endocrine and immune systems in trained and untrained individuals.	CIEJ6015
II.A.1.d	Knowledge of the effect of chronic diseases on acute and chronic responses to aerobic exercise.	CIEJ6015
II.A.1.e	Knowledge of standard and/or disease-specific endpoints for submaximal aerobic exercise tests in apparently healthy individuals and those with chronic disease.	EDUC6627
II.A.1.f	Knowledge of typical submaximal aerobic test results and physiological values in trained and untrained individuals and those with and without chronic diseases.	CIEJ6035
II.A.1.g	Knowledge of abnormal signs and symptoms in apparently healthy individuals and those with chronic disease.	EDUC6627
II.A.1.h	Knowledge of abnormal readings and results from exercise testing equipment (e.g., treadmill, ergometers, electrocardiograph, spirometer, metabolic cart, sphygmomanometer) that may indicate equipment malfunction.	CIEJ6015, CIEJ6035
II.A.1.i	Knowledge of commonly used medications in patients with chronic diseases, their mechanisms of action and side effects.	EDUC6627
II.A.2.a	Skill in selecting the appropriate exercise test based on a patient's disease, condition and ability.	EDUC6627
II.A.2.b	Skill in administering and interpreting of submaximal aerobic exercise tests.	EDUC6627, CIEJ6035
II.A.2.c	Skill in modifying submaximal aerobic test and/or interpretation of results in response to medication use, timing and side effects.	EDUC6627, CIEJ6035
DOMAIN II: EXERCISE TESTING		
B. Select, administer and interpret tests to assess musculoskeletal fitness, mobility and balance.		
II.B.1.a	Knowledge of tests to assess muscular strength, muscular endurance, flexibility and mobility.	CIEJ 6035
II.B.1.b	Knowledge of the acute and chronic responses to resistance exercise on the function of the cardiovascular, respiratory, musculoskeletal, neuromuscular, metabolic, endocrine and immune systems in trained and untrained individuals.	CIEJ 6015
II.B.1.c	Knowledge of tests to assess function and balance.	CIEJ 6035

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II.B.1.d	Knowledge of the acute and chronic responses to flexibility and mobility exercise on the function of the cardiovascular, respiratory, musculoskeletal, neuromuscular, metabolic, endocrine and immune systems.	CIEJ 6015
II.B.1.e	Knowledge of the mechanisms underlying the acute and chronic responses to resistance exercise on the function of the cardiovascular, respiratory, musculoskeletal, neuromuscular, metabolic, endocrine and immune systems in trained and untrained individuals.	CIEJ 6015
II.B.1.f	Knowledge of the effects of chronic diseases and their treatments on acute and chronic responses to resistance exercise, and an individual's flexibility and mobility.	CIEJ 6045
II.B.1.g	Knowledge of standard and/or disease-specific endpoints for muscular strength, endurance, functional and balance testing in apparently healthy individuals and those with chronic disease.	CIEJ 6035
II.B.1.h	Knowledge of typical muscular strength, muscular endurance, functional and balance test results and physiological values in trained and untrained individuals and those with and without chronic diseases.	CIEJ 6035
II.B.1.i	Knowledge of commonly used medications in patients with chronic diseases, their mechanisms of action and side effects.	EDUC 6627
II.B.2.a	Skill in selecting an exercise test based on a patient's disease, condition and ability.	CIEJ 6035
II.B.2.b	Skill in administering and interpreting tests to assess muscular strength and endurance.	CIEJ 6035
II.B.2.c	Skill in administering and interpreting functional and balance tests.	CIEJ 6035
II.B.2.d	Skill in modifying musculoskeletal fitness, mobility and balance tests and/or interpretation of results in response to medication use, timing and side effects.	CIEJ 6035
DOMAIN II: EXERCISE TESTING		
C. Select, prepare and administer maximal, symptom-limited exercise tests.		
II.C.1.a	Knowledge of contraindications to symptom-limited, maximal exercise testing and factors associated with complications (e.g., probability of coronary heart disease, abnormal blood pressure).	CIEJ 6035
II.C.1.b	Knowledge of medical therapies for chronic diseases and their effect on the physiologic response to exercise.	EDUC 6627
II.C.1.c	Knowledge of current practice guidelines/recommendations (e.g., AHA, Arthritis Foundation, National Multiple Sclerosis Society) for the prevention, evaluation, treatment and management of chronic diseases.	EDUC 6627
II.C.1.d	Knowledge of the timing of daily activities (e.g., medications, dialysis, meals, glucose monitoring) and their effect on exercise in patients with chronic diseases.	EDUC 6627
II.C.1.e	Knowledge of cardiovascular, pulmonary and metabolic pathologies, their clinical progression, diagnostic testing and medical regimens/procedures to treat.	EDUC 6627
II.C.1.f	Knowledge of normal and abnormal endpoints (i.e., signs/symptoms) for termination of exercise testing.	
II.C.1.g	Knowledge of abnormal signs and symptoms in apparently healthy individuals and those with chronic disease.	
II.C.1.h	Knowledge of medical therapies for chronic diseases and their effect on resting vital signs and symptoms.	
II.C.1.i	Knowledge of commonly used medications in patients with chronic diseases, their mechanisms of action and side effects.	
II.C.1.j	Knowledge of procedures to prepare a patient for ECG monitoring, including standard and modified lead placement.	
II.C.1.k	Knowledge of tools to guide exercise intensity (e.g., heart rate, perceived exertion, dyspnea scale, pain scale).	
II.C.1.l	Knowledge of the use of effective communication techniques (e.g., active listening and attention to nonverbal behavior, open-ended questioning, reflective listening skills) to address any concerns with the exam procedures.	
II.C.1.m	Knowledge of tests to assess maximal exercise tolerance.	
II.C.1.n	Knowledge of the physiologic responses during incremental exercise to maximal exertion in trained and untrained individuals and those with and without chronic diseases.	
II.C.1.o	Knowledge of standard and/or disease-specific endpoints for maximal exercise testing in apparently healthy individuals and those with chronic disease.	
II.C.1.p	Knowledge of typical maximal exercise test results and physiological values in trained and untrained individuals and those with and without chronic diseases.	
II.C.1.q	Knowledge of medical therapies for chronic diseases and their effect on clinical measurements and the physiologic response to maximal exercise.	
II.C.2.a	Skill in administering a symptom-limited, maximal exercise test.	

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II.C.2.b	Skill in preparing a patient for ECG monitoring during exercise.	
II.C.2.c	Skill in assessing vital signs and symptoms at rest and during exercise.	
II.C.2.d	Skill in interpreting ECG rhythms and 12-lead ECGs.	
	DOMAIN II: EXERCISE TESTING D. Evaluate and report results from a symptom-limited maximal exercise test to medical providers and in the medical record as required.	
II.D.1.a	Knowledge of the effects of chronic diseases on acute responses to maximal exercise.	EDUC 6627
II.D.1.b	Knowledge of standard and/or disease-specific endpoints for maximal exercise testing in apparently healthy individuals and those with chronic disease.	CIEJ 6035
II.D.1.c	Knowledge of abnormal signs and symptoms in apparently healthy individuals and those with chronic disease during maximal exercise testing.	EDUC 6627, CIEJ 6035
II.D.1.d	Knowledge of typical maximal exercise test results and physiological values in trained and untrained individuals and those with and without chronic diseases.	EDUC 6627, CIEJ 6035
II.D.1.e	Knowledge of medical therapies for chronic diseases and their effect on clinical measurements and the physiologic response to maximal exercise.	EDUC 6627, CIEJ 6035
II.D.1.f	Knowledge of the interpretation of maximal exercise test measures (e.g., ECG response, oxygen saturation, rate-pressure product, claudication) and prognostic tools (e.g., Duke Treadmill Score) in context with the indication for the test, termination reason and the patient's medical history.	EDUC 6627, CIEJ 6035
II.D.2.a	Skill in interpreting and reporting results from a symptom-limited, maximal exercise test.	EDUC 6627, CIEJ 6035
	DOMAIN II: EXERCISE TESTING E. Identify relative and absolute contraindications for test termination and report to medical personnel as needed.	
II.E.1.a	Knowledge of absolute contraindications and endpoints for terminating exercise testing.	CIEJ 6035, EDUC 6627
II.E.2.a	Skill in interpreting and reporting results from a symptom-limited, maximal exercise test.	EDUC 6627
II.E.2.	Skill in assessing vital signs and symptoms at rest and during exercise.	CIEJ 6016, CIEJ 6035, EDUC 6627
II.E.2.c	Skill in interpreting ECG rhythms and 12-lead ECGs.	EDUC 6627
	DOMAIN III: EXERCISE PRESCRIPTION A. Develop individualized exercise prescription to support patient needs and goals for various exercise environments (e.g., home/community based, facility based, virtual).	
III.A.1.a	Knowledge of appropriate mode, volume and intensity of exercise to produce favorable outcomes in apparently healthy individuals and those with chronic disease.	CIEJ 6045
III.A.1.b	Knowledge of the FITT-VP (frequency, intensity, time, type, volume, progression) principle for aerobic, muscular fitness/resistance training and flexibility exercise prescription.	CIEJ 6045
III.A.1.c	Knowledge of the benefits and risks of aerobic, resistance and flexibility exercise training in apparently healthy individuals and those with chronic disease.	CIEJ 6015
III.A.1.d	Knowledge of the effects of physical inactivity and methods to counteract these changes.	CIEJ 6015
III.A.1.e	Knowledge of normal and abnormal physiologic responses to exercise in healthy individuals and those with chronic diseases.	CIEJ 6015
III.A.1.f	Knowledge of the timing of daily activities (e.g., medications, dialysis, meals, glucose monitoring) and their effect on exercise training in patients with chronic diseases.	CIEJ 6045
III.A.1.g	Knowledge of disease-specific strategies or tools (e.g., breathing techniques, assistive devices, prophylactic nitroglycerin) to improve exercise tolerance in patients with chronic disease.	
III.A.1.h	Knowledge of appropriate modifications to the exercise prescription in response to environmental conditions in apparently healthy individuals and those with chronic disease.	

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III.A.1.i	Knowledge of current practice guidelines/recommendations (e.g., U.S. Department of Health and Human Services, American College of Sports Medicine, Arthritis Foundation) for exercise prescription in apparently healthy individuals and those with chronic disease.	
III.A.1.j	Knowledge of applying metabolic calculations.	
III.A.1.k	Knowledge of proper biomechanical technique for exercise (e.g., gait assessment, proper weight lifting form).	
III.A.1.l	Knowledge of muscle strength/endurance and flexibility modalities and their safe application and instruction.	
III.A.1.m	Knowledge of principals and application of exercise session organization.	
III.A.1.n	Knowledge of known demographic factors related to likelihood of adherence and maintenance of exercise (e.g., age, gender, socioeconomic status, education, ethnicity, vocation).	
III.A.1.o	Knowledge of psychological issues associated with acute and chronic illness (e.g., anxiety, depression, social isolation, suicidal ideation).	
III.A.1.p	Knowledge of goal setting (e.g., SMART goals), reviewing, and constructive feedback in identifying barriers and reinforcing positive changes.	
III.A.1.q	Knowledge of risk factor reduction programs and alternative community resources (e.g., dietary counseling, weight management, smoking cessation, stress management, physical therapy/back care).	
III.A.1.r	Knowledge of incorporating health behavior theories into clinical practice.	
III.A.2.a	Skill in interpreting functional and diagnostic exercise testing with applications to exercise prescription.	
III.A.2.b	Skill in interpreting muscular strength/endurance testing with applications to exercise prescription.	
III.A.2.c	Skill in developing an exercise prescription based on a participant's clinical status and goals.	
III.A.2.d	Skill in applying metabolic calculations.	
III.A.2.e	Skill in applying strategies to reduce risk of adverse events during exercise (e.g., gait belt, blood glucose monitoring).	
III.A.2.f	Skill in individualizing home exercise programs.	
III.A.2.g	Skill in optimizing patient compliance and adherence of exercise prescription.	
	DOMAIN III: EXERCISE PRESCRIPTION B. Communicate the exercise prescription, including the use of exercise equipment, and the importance of promptly reporting any adverse reactions or symptoms.	
III.B.1.a	Knowledge of normal and abnormal physiologic responses to exercise in healthy individuals and those with chronic diseases.	
III.B.1.b	Knowledge of the timing of daily activities (e.g., medications, dialysis, meals, glucose monitoring) and their effect on exercise training in patients with chronic diseases and how to communicate this information with patient.	
III.B.1.c	Knowledge of lay terminology for explanation of exercise prescription.	
III.B.1.d	Knowledge of the operation of various exercise equipment/modalities.	
III.B.1.e	Knowledge of proper biomechanical technique for exercise (e.g., gait assessment, proper weight lifting form).	
III.B.1.f	Knowledge of muscle strength/endurance and flexibility modalities and their safe application and instruction.	
III.B.1.g	Knowledge of principals and application of exercise session organization.	
III.B.1.h	Knowledge of proper protocol to report adverse symptoms per facility policy.	
III.B.2.a	Skill in communicating exercise prescription, exercise techniques and organization of exercises.	
	DOMAIN III: EXERCISE PRESCRIPTION C. Explain and confirm patient understanding of exercise intensity and measures to assess exercise intensity (e.g., target heart rate, RPE, signs/symptoms, talk test).	
III.C.1.a	Knowledge of tools to guide exercise intensity (e.g., heart rate, RPE, dyspnea scale, pain scale, talk test).	
III.C.1.b	Knowledge of abnormal signs and symptoms during exercise training in apparently healthy individuals and those with chronic disease.	

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III.C.1.c	Knowledge of clear communication using patient learning style and/or health literacy to explain exercise intensity assessment.	
III.C.1.d	Knowledge of clear communication through effective communication techniques (e.g., active listening and attention to nonverbal behavior, open-ended questioning, reflective listening skills).	
III.C.2.a	Skill in teaching methods used to guide exercise intensity.	
	DOMAIN III: EXERCISE PRESCRIPTION D. Evaluate and modify the exercise prescription based on the patient's compliance, signs/symptoms and physiologic response to the exercise program, as needed.	
III.D.1.a	Knowledge of physiologic effects due to changes in medical therapies for chronic diseases and their impact on exercise training.	CIEJ 6045
III.D.1.b	typical responses to aerobic, resistance and flexibility training in apparently healthy individuals and those with chronic disease.	CIEJ 6045 – CIEJ 6015
III.D.1.c	Knowledge of the timing of daily activities (e.g., medications, dialysis, meals, glucose monitoring) and their effect on exercise in patients with chronic diseases.	EDUC 6627
III.D.1.d	Knowledge of disease-specific strategies or tools (e.g., breathing techniques, assistive devices, prophylactic nitroglycerin) to improve exercise tolerance in patients with chronic disease.	CIEJ 6045
III.D.1.e	Knowledge of abnormal signs and symptoms during exercise training in apparently healthy individuals and those with chronic disease.	CIEJ 6045
III.D.1.f	Knowledge of mode, volume and intensity of exercise to produce favorable outcomes in apparently healthy individuals and those with chronic disease.	CIEJ 6045
III.D.1.g	Knowledge of commonly used medications in patients with chronic diseases, their mechanisms of action and side effects.	CIEJ 6045
III.D.1.h	Knowledge of modifications to the exercise prescription in response to environmental conditions in apparently healthy individuals and those with chronic disease.	CIEJ 6045
III.D.1.i	Knowledge of	
III.D.1.j	Knowledge of participant progress in a preventive and rehabilitative exercise program given gender, age, clinical status, pre-program fitness level, specifics of the exercise program (e.g., walking only vs. comprehensive monitored program) and rate of program participation.	
III.D.2a	Skill in helping patients identify barriers and providing strategies to overcome them.	
III.D.2.b	Skill in assessing adequacy of patient's progress in a preventive or rehabilitative exercise program given age, sex, gender, clinical status, specifics of the exercise program and rate of program participation.	
III.D.2.c	Skill in developing an individualized exercise prescription.	
III.D.2.d	Skill in using patient feedback and developing individualized exercise prescription and/or care plan.	
III.D.2.e	Skill in active listening.	
III.D.2.f	Skill in modifying an exercise prescription specifically to meet a patient's individual needs and goals.	CIEJ 6045
	DOMAIN IV: EXERCISE TRAINING AND LEADERSHIP A. Discuss and explain exercise training plan, patient and clinician expectations and goals.	
IV.A.1.a	Knowledge of health counseling techniques (e.g., the patient-centered approach) and nonjudgmental positive regard in creation of collaborative partnership.	CIEJ 6206
IV.A.1.b	Knowledge of effective communication techniques, while using clear, patient-friendly terms (e.g., active listening, body language, motivational interviewing).	CIEJ 6206
IV.A.1.c	Knowledge of factors related to health literacy skills and capacity.	CIEJ 6015
IV.A.1.d	Knowledge of cardiovascular, pulmonary and metabolic pathologies, and their clinical progression.	
IV.A.1.e	Knowledge of diagnostic testing and medical regimens/procedures to treat.	
IV.A.1.f	Knowledge of the FITT-VP principle (frequency, intensity, time, type, volume, progression) for aerobic, muscular fitness/resistance training and flexibility exercise prescription.	
IV.A.1.g	Knowledge of the timing of daily activities (e.g., medications, dialysis, meals, glucose monitoring) and their effect on exercise training in patients with chronic diseases.	CIEJ 6045
IV.A.1.h	Knowledge of disease-specific strategies or tools (e.g., breathing techniques, assistive devices, prophylactic nitroglycerin) to improve exercise tolerance in patients with chronic disease.	CIEJ 6045

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IV.A.1.i	Knowledge of exercise training concepts specific to industrial or occupational rehabilitation, such as work hardening, work conditioning, work fitness and job coaching.	CIEJ 6035
IV.A.1.j	Knowledge of commonly used medication for cardiovascular, pulmonary and metabolic diseases.	
IV.A.2.a	Skill in identifying unique needs of those with chronic diseases in exercise prescription.	
IV.A.2.b	Skill in communicating the exercise prescription and related exercise programming techniques.	CIEJ 6206
IV.A.2.c	Skill in educating patients following the observation of problems with comprehension and performance of their exercise program.	
IV.A.2.d	Skill in applying techniques to reduce risks of adverse events during exercise (e.g., gait belt, blood glucose monitoring).	
IV.A.2.e	Skill in educating participants on the use and effects of medications.	
IV.A.2.f	Skill in communicating with participants from a wide variety of educational backgrounds.	
IV.A.2.g	Skill in using patient feedback to develop individualized exercise prescription and/or care plan.	
IV.A.2.h	Skill in active listening.	CIEJ 6206
	DOMAIN IV: EXERCISE TRAINING AND LEADERSHIP B. Identify, adapt and instruct in cardiorespiratory fitness, muscular strength and endurance, flexibility, coordination and agility exercise modes.	
IV.B.1.a	Knowledge of the selection, operation and modification of exercise equipment/modalities based on the disease, condition and ability of the individual.	CIEJ 6045
IV.B.1.b	Knowledge of proper biomechanical technique for exercise (e.g., gait, weight lifting form).	CIEJ 6045
IV.B.1.c	Knowledge of exercise techniques to reduce risk and maximize the development of cardiorespiratory fitness, muscular strength and flexibility.	CIEJ 6045
IV.B.1.d	Knowledge of mode, volume and intensity of exercise to produce favorable outcomes in apparently healthy individuals and those with chronic disease.	
IV.B.1.e	Knowledge of disease-specific strategies or tools (e.g., breathing techniques, assistive devices, prophylactic nitroglycerin) to improve exercise tolerance in patients with chronic disease.	CIEJ 6045
IV.B.1.f	Knowledge of counseling techniques to optimize participant's disease management, risk reduction and goal attainment.	CIEJ 6206
IV.B.1.g	Knowledge of modifications to the exercise prescription in response to environmental conditions in apparently healthy individuals and those with chronic disease.	CIEJ 6045 – CIEJ 6015
IV.B.1.h	Knowledge of the benefits and risks of aerobic, resistance and flexibility training in apparently healthy individuals and those with chronic disease.	
IV.B.2.a	Skill in identifying unique needs and goals of a patient and adapting/modifying an exercise program.	
IV.B.2.b	Skill in supervising and leading patients during exercise training.	CIEJ 6206
IV.B.2.c	Skill in communicating the exercise prescription and related exercise programming techniques.	
IV.B.2.d	Skill in educating patients following the observation of problems with comprehension and performance of their exercise program.	
	DOMAIN IV: EXERCISE TRAINING AND LEADERSHIP C. As indicated, provide patient monitoring (e.g., pulse oximetry, biometric data) and supervision during exercise.	
IV.C.1.a	Knowledge of normal and abnormal exercise responses, signs and symptoms associated with different pathologies (i.e., cardiovascular, pulmonary, metabolic, orthopedic/musculoskeletal, neuromuscular, neoplastic, immunologic and hematologic disorders).	EDUC 6627 - CIEJ 6035
IV.C.1.b	Knowledge of normal and abnormal 12-lead and telemetry ECG interpretation.	EDUC 6627
IV.C.1.c	Knowledge of exercise program monitoring (e.g., telemetry, oximetry, glucometry).	
IV.C.1.d	Knowledge of disease-specific strategies or tools (e.g., breathing techniques, assistive devices, prophylactic nitroglycerin) to improve exercise tolerance in patients with chronic disease.	

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IV.C.1.e	Knowledge of the benefits and risks of aerobic, resistance and flexibility training in apparently healthy individuals and those with chronic disease.	
IV.C.1.f	Knowledge of the components of a patient's medical history necessary to screen during program participation.	
IV.C.1.g	Knowledge of commonly used medications in patients with chronic diseases, their mechanisms of action and side effects.	
IV.C.1.h	Knowledge of the timing of daily activities with exercise (e.g., medications, meals, insulin/glucose monitoring).	
IV.C.1.i	Knowledge of how medications or missed dose(s) of medications impact exercise and its progression.	
IV.C.1.j	Knowledge of psychological issues associated with acute and chronic illness (e.g., depression, social isolation, suicidal ideation).	
IV.C.1.k	Knowledge of health counseling techniques and nonjudgmental positive regard.	CIEJ 6202
IV.C.2.a	Skill in monitoring and supervising patients during exercise training.	CIEJ 6045
IV.C.2.b	Skill in interpreting ECG rhythms and 12-lead ECGs.	EDUC 6627
IV.C.2.c	Skill in recognizing adverse effects of exercise in apparently healthy persons or those with pathologies of acute and/or chronic disease.	CIEJ 6035 – EDUC 6627
IV.C.2.d	Skill in applying and interpreting tools for clinical assessment (e.g., telemetry, oximetry and glucometry, perceived rating scales).	
IV.C.2.e	Skill in modifying exercise/physical activity programming in response to medication use, timing and side effects.	
	DOMAIN IV: EXERCISE TRAINING AND LEADERSHIP D. Evaluate the patient's contraindications to exercise training and associated risk/benefit and modify the exercise/activity program accordingly.	
IV.D.1.a	Knowledge of the contraindications to exercise training and factors associated with complications in apparently healthy individuals and those with chronic disease.	CIEJ 6045
IV.D.1.b	Knowledge of the benefits and risks of aerobic, resistance and flexibility training in apparently healthy individuals and those with chronic disease.	CIEJ 6045
IV.D.1.c	Knowledge of abnormal signs and symptoms in apparently healthy individuals and those with chronic disease.	CIEJ 6045
IV.D.1.d	Knowledge of the acute and chronic responses to exercise training on the function of the cardiovascular, respiratory, musculoskeletal, neuromuscular, metabolic, endocrine and immune systems in trained and untrained individuals.	
IV.D.1.e	Knowledge of cardiovascular, pulmonary and metabolic pathologies, diagnostic testing and medical management regimens and procedures.	
IV.D.2.a	Skill in identifying contraindications to exercise training.	CIEJ 6045
IV.D.2.b	Skill in modifying the exercise program based on participant's signs and symptoms, feedback and exercise responses.	
	DOMAIN IV: EXERCISE TRAINING AND LEADERSHIP E. Evaluate, document and report patient's clinical status and response to exercise training in the medical records.	
IV.E.1.a	Knowledge of the techniques (e.g., lab results, diagnostic tests) used to diagnose different pathologies, their indications, limitations, risks, normal and abnormal results.	CIEJ 6045
IV.E.1.b	Knowledge of the acute and chronic responses to exercise training on the function of the cardiovascular, respiratory, musculoskeletal, neuromuscular, metabolic, endocrine, and immune systems in trained and untrained individuals.	CIEJ 6015
IV.E.1.c	Knowledge of normal and abnormal exercise responses, signs and symptoms associated with different pathologies (i.e., cardiovascular, pulmonary, metabolic, orthopedic/musculoskeletal, neuromuscular, neoplastic, immunologic and hematologic disorders).	
IV.E.1.d	Knowledge of how chronic diseases may affect the acute and chronic responses exercise training.	CIEJ 6015
IV.E.1.e	Knowledge of abnormal signs or symptoms which may be associated with worsening of a chronic disease.	
IV.E.1.f	Knowledge of proper medical documentation according to generally accepted principles and individual facility standards.	
IV.E.1.g	Knowledge of regulations relative to documentation and protecting patient privacy (e.g., written and electronic medical records, Health Insurance Portability and Accountability Act [HIPAA]).	
IV.E.2.a	Skill in summarizing patient's exercise sessions, outcomes and clinical status into patient's medical record.	

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IV.E.2.b	Skill in proficiency in medical charting.	
	DOMAIN IV: EXERCISE TRAINING AND LEADERSHIP F. Discuss clinical status and response to exercise training with patients and adapt and/or modify the exercise program, as indicated.	
IV.F.1.a	Knowledge of common barriers to exercise compliance and adherence (e.g., physical, environmental, demographic).	CIEJ 6206
IV.F.1.b	Knowledge of effective communication techniques (e.g., active listening, body language).	CIEJ 6206
IV.F.1.c	Knowledge of techniques to adapt/modify exercise program based on a patient's needs.	CIEJ 6045
IV.F.1.d	Knowledge of assess patient's individual progress based on known cardiorespiratory fitness, muscular strength, and flexibility improvements expected within a given population.	
IV.F.1.e	Knowledge of assess patient's tolerance to exercise modality and suggest comparable alternative modalities.	
IV.F.2.a	Skill in communicating health information based on a patient's learning style and health literacy.	
IV.F.2.b	Skill in modifying the exercise program based on participant's signs and symptoms, feedback and exercise responses.	
IV.F.2.c	Skill in summarizing patient's exercise sessions, outcomes and clinical status into patient's medical record.	
	DOMAIN IV: EXERCISE TRAINING AND LEADERSHIP G. Promptly report new or worsening symptoms and adverse events in the patient's medical record and consult with the responsible health care provider.	
IV.G.1.a	Knowledge of proper medical documentation according to generally accepted principles and individual facility standards.	CIEJ 6045
IV.G.1.b	Knowledge of the scope of practice of health care professionals (e.g., physical therapist, nurse, dietician, psychologist).	CIEJ 6205
IV.G.1.c	Knowledge of abnormal signs and symptoms during exercise training in apparently healthy individuals and those with chronic disease.	CIEJ 6045
IV.G.1.d	Knowledge of the effects of chronic diseases on the acute and chronic responses to exercise training.	
IV.G.2.a	Skill in assessing normal and abnormal response to exercise.	
IV.G.2.b	Skill in educating patients following the observation of problems with comprehension and performance of their exercise program.	
IV.G.2.c	Skill in evaluating and prompt reporting of a patient's adverse response to an exercise program in accordance with a facility policy and procedures.	EDUC 6627
	DOMAIN V: EDUCATION AND BEHAVIOR CHANGE A. Continually evaluate patients using observation, interaction and industry-accepted tools, to identify those who may benefit from counseling or other mental health services using industry-accepted screening tools.	
V.A.1.a	Knowledge of establishment of rapport through use of open-ended questions, active listening and attention to nonverbal behavior, interest and empathy.	CIEJ 6206
V.A.1.b	Knowledge of the psychological issues associated with acute and chronic illness (e.g., anxiety, depression, social isolation, hostility, aggression, suicidal ideation).	CIEJ 6206
V.A.1.c	Knowledge of theories of health behavior change (e.g., Social Cognitive Theory [SCT], Health Belief Model [HBM], Transtheoretical Model [TTM]).	CIEJ 6206
V.A.1.d	Knowledge of industry accepted screening tools to evaluate mental health status (e.g., SF-36, Beck Depression Index).	CIEJ 6206
V.A.1.e	Knowledge of signs and symptoms of failure to cope during personal crises (e.g., job loss, bereavement, illness).	CIEJ 6206
V.A.1.f	Knowledge of accepted methods of referral to behavioral health or other specialist as needed.	
V.A.2.a	Skill in administering commonly used screening tools to evaluate mental health status.	
V.A.2.a	Skill in applying and interpreting psychosocial assessment tools.	
V.A.2.a	Skill in identifying patients who may benefit from behavioral health services.	

	DOMAIN V: EDUCATION AND BEHAVIOR CHANGE B. Assess patient's understanding of their disease and/or disability and conduct education to teach the role of lifestyle in the prevention, management, and treatment of the disease.	
V.B.1.a	Knowledge of active listening, open-ended questioning, reflective listening skills.	CIEJ 6206
V.B.1.b	Knowledge of patient-centered health counseling techniques (e.g., Five-A's Model, Motivational Interviewing).	CIEJ 6206
V.B.1.c	Knowledge of factors related to health literacy skills and capacity.	CIEJ 6205
V.B.1.d	Knowledge of barriers to exercise compliance (e.g., physical/disease state, psychological environmental, demographic).	CIEJ 6206
V.B.1.e	Knowledge of social ecological model.	
V.B.1.f	Knowledge of psychological issues associated with acute and chronic illness (e.g., anxiety, depression, suicidal ideation).	
V.B.1.g	Knowledge of theories of health behavior change (e.g., Social Cognitive Theory, Health Belief Model, Transtheoretical Model).	CIEJ6206
V.B.1.h	Knowledge of tools to determine a patient's knowledge and their readiness to change (e.g., scoring rulers, decisional balance).	CIEJ6206
V.B.1.i	Knowledge of the benefits and risks of aerobic, resistance, flexibility, and balance training in apparently healthy individuals and those with chronic disease.	
V.B.1.j	Knowledge of the health benefits of a physically active lifestyle, the hazards of sedentary behavior, and current recommendations from U.S. national reports on physical activity (e.g., U.S. Surgeon General, National Academy of Medicine).	CIEJ 6015
V.B.1.k	Knowledge of abnormal signs and symptoms during rest and exercise in apparently healthy individuals and those with chronic disease.	EDUC 6627
V.B.1.l	Knowledge of the epidemiology, pathophysiology, progression, risk factors, key clinical findings, and treatments of chronic disease.	EDUC 6627
V.B.1.m	Knowledge of education content and program development based on participant's medical history, needs and goals.	
V.B.1.n	Knowledge of medical therapies and commonly used medications for chronic diseases and their effect on resting vital signs, clinical measurements, and the response to exercise.	EDUC 6627
V.B.1.o	Knowledge of disease-specific strategies and tools to improve exercise tolerance (e.g., breathing techniques, insulin pump use, prophylactic nitroglycerin).	
V.B.1.p	Knowledge of risk factor reduction strategies (e.g., healthy nutrition, weight management/BMI, body composition, smoking cessation, stress management, back care, substance abuse).	EDUC 6627
V.B.2.a	Skill in assessing a patient's educational needs.	CIEJ 6206
V.B.2.b	Skill in communicating health information based on a patient's learning style and health literacy.	CIEJ 6206
V.B.2.c	Skill in developing educational materials and programs on disease and the role of lifestyle intervention.	CIEJ 6205
V.B.2.d	Skill in teaching health information to patient's in individual and group settings.	
V.B.2.e	Skill in communicating exercise techniques, prescription and progression.	
	DOMAIN V: EDUCATION AND BEHAVIOR CHANGE C. Apply health behavior change techniques (e.g., Motivational Interviewing, Cognitive Behavioral Therapy [CBT], Health Coaching) based upon assessment of readiness to change according to Transtheoretical Model (TTM).	
V.C.1.a	Knowledge of active listening, open-ended questioning, reflective listening skills.	CIEJ 6206
V.C.1.b	Knowledge of barriers to exercise compliance and adherence (e.g., physical/disease state, psychological environmental, demographic, vocational).	CIEJ 6206
V.C.1.c	Knowledge of known demographic factors related to likelihood of adherence and maintenance of exercise (e.g., age, gender, socioeconomic status, education, ethnicity).	CIEJ 6206
V.C.1.d	Knowledge of characteristics associated with poor adherence to healthy behaviors.	CIEJ 6206
V.C.1.e	Knowledge of health counseling techniques (e.g., the patient-centered approach).	CIEJ 6206
V.C.1.f	Knowledge of goal setting (e.g., SMART goals), reviewing, and constructive feedback in support of patient for best likelihood of achievement of goals.	
V.C.1.g	Knowledge of theories of health behavior change (e.g., Social Cognitive Theory [SCT], Health Belief Model [HBM], Transtheoretical Model ([TTM]).)	CIEJ 6206

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V.C.1.h	Knowledge of application of behavior-change techniques (e.g., motivational interviewing, cognitive-behavioral therapy, health coaching).	CIEJ 6206
V.C.1.i	Knowledge of eliciting change talk by patient through motivational interviewing technique.	CIEJ 6206
V.C.1.jd	Knowledge of development of self-efficacy (task and barriers) in exercise behaviors.	CIEJ 6206
V.C.2.a	Skill in effective use of behavior-change techniques.	
V.C.2.b	Skill in active listening of patient feedback and consideration with decision making of exercise prescription and/or care plan.	CIEJ 6206
V.C.2.c	Skill in promoting patient engagement in process of fitness and health improvement.	
V.C.2.d	Skill in creating clear communication using medical terminology suitable for patient's health literacy and/or learning style.	
	DOMAIN V: EDUCATION AND BEHAVIOR CHANGE D. Promote adherence to healthy behaviors through a patient centered approach (e.g., addressing barriers, engaging in active listening, expressing interest and empathy, increasing self-efficacy, teaching relapse prevention techniques and identifying support).	
V.D.1.a	Knowledge of establishment of rapport through use of open-ended questions, active listening and attention to nonverbal behavior, interest and empathy.	CIEJ 6206
V.D.1.b	Knowledge of health counseling techniques (e.g., the patient-centered approach) and nonjudgmental positive regard in creation of collaborative partnership.	CIEJ 6206
V.D.1.c	Knowledge of theories of health behavior change (e.g., Social Cognitive Theory [SCT], Health Belief Model [HBM], Transtheoretical Model [TTM]).	CIEJ 6206
V.D.1.d	Knowledge of barriers to exercise compliance and adherence (e.g., physical/disease state, psychological environmental, demographic, vocational).	CIEJ 6206
V.D.1.e	Knowledge of known demographic factors related to likelihood of adherence and maintenance of exercise (e.g., age, sex, gender, socioeconomic status, education, ethnicity).	CIEJ 6206
V.D.1.f	Knowledge of tools for measuring clinical exercise tolerance (e.g., heart rate, glucometry, subjective rating scales), and consideration of affect regulation in determining exercise prescription.	
V.D.1.g	Knowledge of risk factor reduction programs and alternative community resources (e.g., wellness coaching, smoking cessation, physical therapy/back care, dietary counseling).	
V.D.1.h	Knowledge of goal setting (i.e., SMART goals), reviewing, and constructive feedback in support of patient for best likelihood of achievement of goals.	CIEJ 6206
V.D.1.i	Knowledge of eliciting change talk by patient through motivational interviewing technique.	CIEJ 6206
V.D.1.j	Knowledge of development of self-efficacy (task and barriers) in exercise behaviors.	CIEJ 6206
V.D.1.k	Knowledge of promotion of patient intrinsic motivation (e.g., supporting feelings of autonomy and competence, positive feedback, enjoyment) in facilitating long-term adherence to exercise.	CIEJ 6206
V.D.1.l	Knowledge of community resources (exercise and/or health support) available for participant use following program conclusion and/or discharge.	
V.D.1.m	Knowledge of relapse prevention techniques (e.g., proactive problem solving, managing lapses, maintaining high self-efficacy in health behaviors, identifying social support).	CIEJ 6206
V.D.1.n	Knowledge of guidance of social support (e.g., reassurance, nurturance, supportive exercise groups).	CIEJ 6206
V.D.2.a	Skill in effective use of behavior-change techniques.	CIEJ 6206
V.D.2.b	Skill in active listening and receptiveness to patient feedback in decision making of exercise prescription and/or care plan.	CIEJ 6206
V.D.2.c	Skill in effective communication with participants from a wide variety of backgrounds.	CIEJ 6206
V.D.2.d	Skill in promoting patient engagement in process of fitness and health improvement.	
	DOMAIN VI: LEGAL AND PROFESSIONAL RESPONSIBILITIES A. Evaluate the exercise environment and perform regular inspections of any emergency equipment and practice emergency procedures (e.g., crash cart, activation of emergency procedures) per industry and regulatory standards and facility guidelines.	

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VI.A.1.a	Knowledge of government and industry standards and guidelines (e.g., American Association of Cardiovascular and Pulmonary Rehabilitation [AACVPR], American College of Sports Medicine [ACSM], Academy of Nutrition and Dietetics, Health Insurance Portability and Accountability Act [HIPAA], Joint Commission: Accreditation, Health Care, Certification [JCAHO], Occupational Health and Safety Act [OHSA], Americans with Disabilities Act, American Diabetes Association [ADA]).	CIEJ 6205
VI.A.1.b	Knowledge of the operation and routine maintenance of exercise equipment.	
VI.A.1.c	Knowledge of current practice guidelines/recommendations for facility layout and design.	CIEJ 6205
VI.A.1.d	Knowledge of standards of practice during emergency situations (e.g., American Heart Association, American Red Cross).	
VI.A.1.e	Knowledge of local and institutional procedures for activation of the emergency medical system.	
VI.A.1.f	Knowledge of standards for inspection of emergency medical equipment.	
VI.A.1.g	Knowledge of risk-reduction strategies, universal precautions, basic life support, emergency equipment, and standard emergency procedures.	
VI.A.2.a	Skill in adhering to legal guidelines and documents.	CIEJ 6205
VI.A.2.b	Skill in implementing facility safety policies and procedures.	
VI.A.2.c	Skill in applying basic life support procedures (e.g., Cardiopulmonary resuscitation [CPR], automated external defibrillator [AED]).	
VI.A.2.d	Skill in the use of medical terminology.	
	DOMAIN VI: LEGAL AND PROFESSIONAL RESPONSIBILITIES B. Follow industry-accepted scopes of practice, ethical, legal (e.g., data privacy, informed consent), and business standards.	
VI.A.1.a	Knowledge of professional liability and common types of negligence seen in exercise rehabilitation and exercise testing environments.	CIEJ 6205
VI.A.1.b	Knowledge of the legal implications of documented safety procedures, the use of incident documents, and ongoing safety training.	CIEJ 6205
VI.A.1.c	Knowledge of the scope of practice of healthcare professionals (e.g., physical therapist, nurse, dietician, psychologist).	CIEJ 6205
VI.A.1.d	Knowledge of current practice guidelines/recommendations (e.g., National Heart, Lung, and Blood Institute, Arthritis Foundation, National Multiple Sclerosis Society) for the prevention, evaluation, treatment, and management of chronic diseases.	CIEJ 6205
VI.A.1.e	Knowledge of regulations relative to documentation and protecting patient privacy (e.g., written and electronic medical records, Health Insurance Portability and Accountability Act [HIPAA]).	CIEJ 6205
VI.A.2.a	Skill in proficiency in medical charting.	
VI.A.2.b	Skill in applying industry and regulatory standards.	CIEJ6205
VI.A.2.c	Skill in adhering to legal guidelines and documents.	CIEJ 6205
VI.A.2.d	Skill in the use of medical terminology.	