COLORADO HEALTH SCIENCE & PUBLIC SAFETY

Learning that works for Colorado CTE®

Personal Trainer (CPT)

Course Name	Personal Trainer (CPT)	Course = 0.50 Carnegie Unit Credit
Course Description	The Certified Personal Trainer (CPT) course prepares students for the NCCA-Accredited CPT exam. The course also instills the knowledge and standards needed for excellence in Certified Personal Trainer practice. The NCCA-Accredited CPT exam is an approved certification found on the Career Development Incentive Program (CDIP) approved programs list.	
Note:	● This is a suggested scope and sequence for the course content. The content will work with any textbook or instructional resource. If locally adapted, make sure all competencies are covered. Please contact your local community college partner for credit options available. ● Instructors **must** have ○ A current CPT certification in order to run this course. This may be free to the instructor based on the CPT training organization the program partners with for the class coursework. **AND** ○ An approved CTE credential for this course. ● This course **must** be run in partnership with an NCCA-accredited organization (NASM...). This means that the course/students use materials from an NCCA-accredited organization. ● A CTE-approved Anatomy and Physiology course must be taken as part of this pathway before a student begins this Personal Trainer course. ● Students can sit for the CPT exam after completion of the course with the instructor's approval.	
Schedule:	Schedule calculation based on 60 contact hours. 60% of instruction time should be geared in meeting the course competencies in the scope and sequence. The remaining 40% of the instructional time allows for guest speakers, student presentations, field trips, remediation, or other content topics.	
All courses taught in an approved CTE program must include Essential Skills embedded into the course content. The Essential Skills Framework for this course can be found at https://www.cde.state.co.us/standardsandinstruction/essentialskill		
Instructional Unit Topic	Suggested Length of Instruction	CTE or Academic Standard Alignment	Competency / Outcomes
Basic and Applied Sciences and Nutritional Concepts			1. Concepts and structures of anatomy, including the nervous system, muscular system, skeletal system, cardiorespiratory system, and endocrine system
			2. Functions of exercise physiology related to: a. nervous system b. muscular system

			c. skeletal system d. endocrine system e. cardiorespiratory system f. digestive system g. bioenergetics and exercise metabolism
			3. Functional biomechanics (such as levers, force, torque)
			4. Principles of human movement science related to: a. planes of motion (sagittal, frontal, and transverse) b. muscle action spectrum (isometric, concentric, and eccentric) c. force-couple relationships (agonist, antagonist, synergist, and stabilizer) d. length-tension relationship e. stretch-shortening cycle f. reciprocal inhibition and autogenic inhibition g. joint actions (such as rotation, flexion, extension) h. integrated muscle system (global and local systems, including deep i. longitudinal subsystem, anterior oblique subsystem, and posterior oblique subsystem)
			5. Principles of motor development (motor learning, motor control, and motor behavior)
			6. Macronutrients (carbohydrates, protein, and fat)
			7. Micronutrients (vitamins and minerals)
			8. Hydration concepts and guidelines
			9. Recommendations and guidelines for caloric intake and expenditure
			10. Energy systems (ATP-PC System, glycolytic, and oxidative)
			11. Exercise post-oxygen consumption [EPOC]
			12. Units of energy measurement (kcals and calories)
			13. Dietary reference intakes
			14. Portion sizes, meal timing, and meal frequency
			15. Nutrient and energy density
			16. Crash/fad/myth diets

			17. Common nutritional supplements including possible risks, benefits, uses, and effects
			18. Food and supplement label reading
			19. Factors that can influence weight management physiology (such as the law of thermodynamics, poor sleep, endocrine abnormalities, medications, metabolism
Client Relations and Behavioral Coaching			1. Communication methods and strategies (such as verbal and nonverbal communication, active listening, rapport building)
			2. Goal types (such as SMART, short-term, long-term, lifetime, process, outcome)
			3. Client expectation management related to client-trainer relationship and overall training goals
			4. Transtheoretical Model of Behavior Change (or Stages of Change)
			5. Behavioral coaching methods (such as motivational coaching, reinforcements)
			6. Behavior change strategies (such as habit stacking, stress reduction, time management)
			7. Barriers to behavior change (such as social influences, environmental factors)
			8. Psychological responses to exercise (such as stress relief, improved self-esteem, positive self-image)
Assessment			1. Physical Activity Readiness Questionnaire (PAR-Q) assessment
			2. Essential elements of personal, occupational, and family medical history
			3. Medical risk factors (such as pregnancy, eating disorders, hypertension, age of the client)
			4. Elements of a lifestyle questionnaire (such as sleep, stress level, tobacco and alcohol use)
			5. Cardiorespiratory assessments (such as 3-minute step test, Rockport Walk Test, VO2MAX test, rate of perceived exertion [RPE]).
			6. Physiological assessments relevant to CPTs (such as resting heart rate, blood pressure, waist-to-hip ratio)
			7. Kinetic chain checkpoints (ankles, knees, lumbo-pelvic-hip complex, shoulders, and head)
			8. Applicability of assessments from other health professionals (such

			as blood pressure, cholesterol, glucose, BMI)
			9. Body composition assessments and calculations (such as skin fold calipers, circumference, bioelectrical impedance, fat mass, lean mass)
			10. Static postural assessment
			11. Performance assessments (such as 1-repetition maximum, vertical jump, long [broad] jump)
			12. Types of movement assessments (such as overhead squat, single-leg squat, push, pull, gait)
			13. Considerations for selection of assessment(s) to administer based on client's goals, fitness level, and contraindications
			14. Considerations and modifications for performing assessments with special populations (such as youth; seniors; prenatal, clinical, and obese clients)
			15. Standards for assessments and outcome expectations for special populations (such as youth; seniors; prenatal, clinical, and obese clients)
			16. Indicators that a client's condition requires a medical release/clearance or is out of scope and requires referral to another professiona
			17. Criteria for reassessment (such as time lapsed, client plateau, change in goals, change in health, change in phase, weight loss or gain
Program Design			1. Periodization concepts, programming, and methods, including: a. macro-, meso-, and microcycles b. levels (such as stabilization, strength, power) c. phases (such as stabilization endurance, strength endurance, hypertrophy, maximal strength, power) d. approaches (linear and undulating)
			2. Principles of specificity, variation, and overload
			3. General adaptation syndrome
			4. Flexibility training methods (such as self-myofascial release (SMR), static, activeisolated, dynamic stretching)
			5. Resistance training systems (such as single set, multiple set, super set, pyramid set, circuit training, vertical loading, horizontal loading)

			6. Resistance training modalities (such as machines, body weight, free weights)
			7. Cardiorespiratory training methods (such as zone/stage training, interval training, steady state)
			8. Core training exercises for core-stabilization (such as plank, bird dog, bridge), core-strength (such as reverse crunches, ball crunches, cable rotations) and corepower (such as soccer throw, rotation chest pass, medicine ball pullover throw)
			9. Balance training exercises for balance-stabilization (such as single-leg balance, single-leg balance and reach, single-leg windmill), balance-strength (such as singleleg squat, single-leg deadlift, lunge to balance) and balance-power (such as singleleg box hop-up, single-leg box hop-down, multiplanar single-leg hop)
			10. Proprioceptive progression and regression (such as closing or opening eyes, single-leg stand, sitting)
			11. Reactive training exercises for reactive stabilization (such as squat jump with stabilization, box jump-up to stabilization, multiplanar jumps with stabilization), reactive strength (such as butt kicks, tuck jump, squat jump) and reactive power (such as box run steps, ice skaters, proprioceptive plyometrics)
			12. Speed, agility, and quickness (SAQ) training exercises (such as resisted sprints, cone drills, agility ladder drills)
			13. Exercise progression/regression
			14. Acute variables (such as sets, repetitions, exercise selection, progressions, FITTE principle)
			15. Risk versus reward of different modalities and exercises
			16. Overtraining, rest, and recovery
			17. Current trends and their applicability to individual training programs
			18. Types of fitness technology (such as heart rate monitors, performance trackers, nutrition trackers, applications) and their uses and benefits
			19. Considerations for selection of exercises based on client's assessment results, goals, fitness level, and contraindications
			20. Considerations for exercise program design for special populations (such as youth; seniors; prenatal, clinical, and obese

			clients)
Exercise Technique and Training Instruction			1. Proper set-up and technique of: a. flexibility training methods b. core exercises c. balance exercises d. reactive exercises, including plyometrics e. speed, agility, and quickness (SAQ) exercises f. resistance training exercises g. warm-up protocol h. cool-down protocol
			Kinesthetic, auditory, and visual cueing techniques
			Safe training practices (such as maintaining a safe environment, monitoring exercise intensity, proper equipment setup)
			Physical signs or symptoms that indicate need for training modification or discontinuation
			Application and modalities of exercise regressions and progressions
			Safe, effective, and professional spotting techniques
			Proper breathing techniques during exercise
			Kinetic chain checkpoints (ankles, knees, lumbo-pelvic-hip complex, shoulders, and head)
Professional Development & Responsibility			1. Professional and ethical guidelines, standards, and codes of conduct (such as record keeping, client medical clearance, physical appearance and attire, punctuality)
			2. Scope of practice and professional limitations of personal trainer (such as psychological counseling, meal planning, diagnosing injury)
			3. Requirements for maintaining professional credentials
			4. Resources regarding rules and regulations applicable to CPTs
			5. Marketing concepts and techniques (such as branding, business-to-business [B2B] and business-to-consumer [B2C] networking, sponsoring, use of social media, community involvement, video blogging)
			6. Techniques for client acquisition, retention, and ascension (such as

			professional and timely communications, obtaining client feedback, events, promotions, social media campaigns, email campaigns)
			7. Sales concepts and techniques (such as lead generation, presenting, prehandling, and overcoming objections)
			8. Equipment maintenance and safety considerations
			9. Emergency protocols (such as activating EMS, implementing facility emergency action plan)
			10. Credible resources of information regarding health and fitness education (such as scholarly articles, peer-reviewed articles, conferences, workshops)
			11. Opportunities for professional development through education and other professional experiences