

Course: Functional Fitness
PEIMS Code: N1160011
Abbreviation: FUNFIT
Grade Level(s): 9-12
Number of Credits: 1.0

Course description:

Functional Fitness is designed to teach sustainable fitness through core strength and conditioning, regardless of fitness level, body composition, or athletic ability. Using basic body-weight movements, the fun of sport and game, and accountability through journaling, students advance through levels that increase in intensity and encourage camaraderie and competition amongst peers to motivate students to unparalleled fitness. Journals help students to track their performance during the workouts, set goals, and complete written assignments, which shall include student's observations on nutrition, sleep, recovery, and values related to sports.

Essential knowledge and skills:

Functional Fitness (One Credit)

(a) **General requirements.** The recommended prerequisite for this course is Foundations of Personal Fitness.

(b) **Introduction.**

- (1) In Functional Fitness, the student learns to manage and complete functional movements with high intensity.
- (2) Students learn to work within specified time domains.
- (3) In Functional Fitness the students work according to their individual ability.
- (4) Following completion of their work, students analyze and document their performance.

(c) **Knowledge and skills.**

- (1) Comprehension. The student reaches a testable level of comprehension and understanding in functional movement. The student is expected to:
 - (A) identify performance-based measures such as the Star Excursion Balance Test, T-Test for agility, Tuck Jump Test, and Davies Upper Extremity Test;

- (B) analyze the technique expectations of performance-based measures such as the Star Excursion Balance Test, T-Test for agility, Tuck Jump Test, and Davies Upper Extremity Test;
- (C) summarize results on performance-based measures such as the Star Excursion Balance Test, T-Test for agility, Tuck Jump Test, and Davies Upper Extremity Test;
- (D) identify and list the functional movements involved in a dynamic warm-up by:
 - (i) describing the importance of a dynamic warm-up in preparing for exercise performance and physical activity; and
 - (ii) explaining how the dynamic warm-up promotes flexibility, muscle health, and full range of motion of joints;
- (E) define plyometric physical activity by:
 - (i) identifying the parts of the dynamic warm-up that involve plyometric activity;
 - (ii) describing which plyometric exercises are important in preparing for functional movement exercises;
 - (iii) explaining why plyometric physical activity is important in preparing for functional movement exercises; and
 - (iv) explaining how plyometric movement promotes full range of motion of joints;
- (F) identify and describe the planes of movement and their importance to functional movement;
- (G) discuss dynamic core function by:
 - (i) defining the core;
 - (ii) identifying the muscle groups that comprise the core; and
 - (iii) describing why dynamic core function is important to functional movement;
- (H) discuss how dynamic and static stretching helps the body to recover from functional movement performed under relatively high intensity by:
 - (i) listing dynamic and static stretches; and
 - (ii) describing the difference between dynamic and static stretching;
- (I) discuss common sense approaches to diet and how nutrition choices relate to exercise performance and physical activity by:
 - (i) explaining how choices in diet impact exercise performance and physical activity;
 - (ii) describing the importance of diet in preparing for and recovering from physical activity; and
 - (iii) chronicling how poor diet choices can lead to unsafe conditions for performing physical activity under relatively high intensity;

- (J) discuss how choices in hydration relate to exercise performance and physical activity by:
- (i) explaining how choices in hydration impact exercise performance and physical activity;
 - (ii) describing the importance of hydration in preparing for and recovering from physical activity; and
 - (iii) chronicling how poor hydration can lead to unsafe conditions for performing physical activity under relatively high intensity; and
- (K) discuss how sleep relates to exercise performance and physical activity by:
- (i) explaining how sleep impacts exercise performance and physical activity;
 - (ii) describing how sleep helps the body to recover; and
 - (iii) chronicling how the lack of sleep can lead to unsafe conditions for performing physical activity under relatively high intensity.
- (2) Movement. The student develops the ability to participate in and demonstrates competency in functional movement skills. The student is expected to:
- (A) describe functional body-weight movements such as squats, rolling, upper-extremity pushing, pulling, pressing, plyometrics, lifting from the ground to the waist, and lifting from the waist to overhead;
 - (B) execute functional body-weight movements such as squats, rolling, upper-extremity pushing, pulling, pressing, plyometrics, lifting from the ground to the waist, and lifting from the waist to overhead;
 - (C) explain measurable performance-based improvements in benchmarks such as the Star Excursion Balance Test, T-Test for agility, Tuck Jump Test and Davies Upper Extremity Test;
 - (D) demonstrate measurable performance-based improvements in benchmarks such as the Star Excursion Balance Test, T-Test for agility, Tuck Jump Test and Davies Upper Extremity Test;
 - (E) describe the components of the dynamic warm-up; and
 - (F) execute the dynamic warm-up.
- (3) Physical activity and health. The student applies movement concepts and principles to the learning and development of motor skills. The student is expected to:
- (A) develop an appropriate conditioning program for the selected physiologic goal regarding target metabolic system;
 - (B) execute an appropriate conditioning program for the selected physiologic goal regarding target metabolic system and do so with appropriate safety practices; and
 - (C) identify and list the critical elements, such as range of motion, for successful performance within the context of the activity.

- (4) Physical activity and health. The student exhibits a physically active lifestyle that improves health and provides opportunities for enjoyment and challenge. The student is expected to:
- (A) analyze health, movement, and fitness derived from participation in class activities;
 - (B) establish realistic and challenging strength-related fitness goals;
 - (C) explain realistic and challenging strength-related fitness goals;
 - (D) examine and use appropriate technology tools to evaluate, monitor, and improve physical development, heart rate, activity, or sleep; and
 - (E) examine and use appropriate technology tools, scales and machines to measure body fat, visceral body fat, metabolic rates, and estimate caloric intake based on physical activity levels.
- (5) Cognitive Activities. The student exhibits a knowledge of the human body and the components needed to be healthy and well. The student is expected to:
- (A) record the conditions of the day, such as time, date, weather, and mood going into functional movement exercises;
 - (B) identify the skills and functional movement exercises of the day;
 - (C) record workout result such as total reps or time to completion;
 - (D) record how the body feels post workout;
 - (E) identify and describe how sleep impacts performance in functional movement;
 - (F) identify and describe how food choices impact performance in functional movement;
 - (G) identify and describe how hydration impacts performance in functional movement;
 - (H) analyze journal entries and correlate data with performance;
 - (I) compare and contrast performance on benchmark workouts conducted periodically; and
 - (J) analyze the conditions that led to a different result in the benchmark workout when repeated by:
 - (i) analyzing what factors contributed to an improved performance;
 - (ii) discussing how nutrition, hydration, and sleep impacted performance on the benchmark workout;
 - (iii) describing how the dynamic warm-up prepared the body for the benchmark workout; and
 - (iv) describing how the dynamic and static stretches helped the body to recover after the benchmark workout was performed.
- (6) Safety in Training. The student applies safe functional movement concepts and principles to the learning and development of motor skills. The student is expected to:
- (A) identify mobility patterns that are unsafe and inefficient due to technique flaws such as when performing an air squat, the student is expected to initiate the movement with hips back and not knees forward;
 - (B) modify mobility patterns that are unsafe and inefficient due to technique flaws such as the student corrects the identified technique flaw in their squat by performing a wall squat;

- (C) identify and modify mobility patterns that are unsafe and inefficient due to technique flaws through peer review;
- (D) record conditions that could make functional exercises dangerous, such as insufficient nutrition, hydration or sleep;
- (E) use dynamic and static stretches to help the body recover and heal following physical activity by:
 - (i) identifying which dynamic and static stretches are helpful for recovery;
 - (ii) describing the difference between dynamic and static stretches; and
 - (iii) listing the reasons why dynamic and static stretches are important to recovery; and
- (F) employ effective verbal communication to let others when an injury has occurred by:
 - (i) identifying where the injury occurred;
 - (ii) describing how the injury feels; and
 - (iii) describing the general location of the injury.

Description of specific student needs this course is designed to meet:

Functional Fitness is designed for any student that seeks improvement in overall physical appearance and health. Because there are progressions and scales for every movement, a single class can accommodate students of varying fitness levels. Functional Fitness also appeals to students who have an interest in continuing with physical activity and/or sports beyond their required physical education credit but have yet to find a sport (individual or team) or don't participate in regular physical activity. These students tend to fall into low-to-moderate physical activity zones or need help getting into the Healthy Fitness Zone as defined by Fitnessgram. Functional Fitness asks the student to move vigorously and, as a result, there is aesthetic and health/wellness benefits. Functional Fitness can also be adapted for students with special needs and disabilities.

Major resources and materials:

There are multiple resources avail There are multiple resources available for instructors of Functional Fitness classes:

- 1) The manual entitled "Functional Fitness: Screening, Mobility, Injury Prevention and Corrective Exercise manual by GenerationFit;" and
- 2) 2) Personal Record Book and Workouts, which are a series of class plans, assignments and journal entries.

Suggested course activities:

Regardless of level, the following are considered required course activities by the students:

- 1) Complete benchmarks as scheduled;

- 2) Maintain an accurate accounting of work performed during class in the FitClub Personal Record Book;
- 3) Participate in sleep and hydration tracking; and

Samples of optional activities the students may choose:

- 1) Participate in external competitions or activities, such as a 3K “fun run,” or an adventure race;
- 2) Food journal;
- 3) 3) Volunteer at a competitive event;
- 4) Create workouts to do at home or during weekends; and
- 5) Participate in FitGames competition at the end of the semester. The FitGames are an organized sporting event put on by Generation Fit for schools participating in their program. It’s an opportunity for students to apply the skills they learned throughout the semester.

Suggested methods for evaluating student outcomes:

- 1) Class work.
 - a) Classroom participation/cooperation throughout the lesson or class period, asking questions, and participating in other feedback opportunities;
 - b) Activities and game playing will reinforce the workouts and strengthen basic health skills in identified critical areas of need; and
 - c) Attitude, communication, and teamwork with other students.
- 2) FitClub Personal Record Books
 - a) Documenting dates/scores/times from the workout-of-the-day; and
 - b) Recording of individual goals.
- 3) Research papers/logs
 - a) Individual tracking of nutrition, recovery, and other wellness topics related to overall health and health skills.
- 4) Tests
 - a) Essays; and
 - b) Physical participation in the end-of-semester competition.

Teacher qualifications:

Certified Secondary Physical Education teachers who also participate in GenerationFit I and II of the fall, winter, and spring continuing education camps that accompany the textbook/manual.

Recommended: possess and/or pursue specialty knowledge, education or certifications in gymnastics or Olympic Lifting (example, United States Association of Weightlifting (USAW) Level 1 certification), Onnit Academy, OPEX Fitness, CrossFit Level 1 certification or Russian Kettlebell Certification (RKC).

Additional information:

Please follow the link below to review:

1. Program history
2. Research studies
3. Biography and education of program developers

<https://sites.google.com/a/roundrockisd.org/generation-fit/>

Building Blocks (Table 1)

Functional movement is progressive learning, meaning one concept builds upon another to lead to more advanced skills. Students starts their learning with Foundations, which are primarily body weight movements. The chart below details the progressions student make as they build skills, and how the expectations increase as they move into Functional Fitness classes.

Foundations of Personal Fitness	Functional Fitness
WEIGHTLIFTING	
Air squat	Back Squat
Press	Bench Press
MB Chest pass	
Push Press	Wall Ball
Sandbell/MB Slam	MB Clean
	Ground-2-OH (dumbell)
Farmer Carry	Deadlift - KB & barbell (intro)
	KB swings - Russian & American
GYMNASTICS	
Plank	Reverse Plank
AbMat Situp	Knees to Elbows
	L-sit
Pushup	Ring Row
	Pull-Up
Headstand	Handstand Kickups
	Handstand Holds
	Handstand Pushup Progressions
Forward & backward rolls	
Broad Jumps	Box Jumps
	Jumping squat
Lunge	Jumping lunge
	OH Plate lunge
METABOLIC CONDITIONING	
Single Under	Double Under
Single Foot	Backward Jump Rope
200, 400, 800-m run	3K
Burpee	
Shuttle Run	