

## Exercises on and off an Obstacle Course



50 functional body weight exercises you can use to build balance, coordination, agility, speed, endurance, power, flexibility, and improve posture



Published by:  
Railyard Fitness  
[www.railyardfitness.com](http://www.railyardfitness.com)

## **Acknowledgements**

*This manual was created through a collaboration of experts who have a passion for functional exercise and the Railyard Obstacle Course. Many of the exercises can be performed on the ground, on natural obstacles found in your environment or on the Railyard. We've include workouts that do not require the use of a Railyard, it's our hope that you will give these workouts a trial; you will see how effective and productive they can be. Once you've experienced these exercises on the ground, imagine how much more fun and effective they will be on the elevated, inclined, round surface of a Railyard!*

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## INTRODUCTION

The concept for an obstacle course can be traced back to our earliest days when life involved moving up and down, over, around, and under any number of things that got in our way. Getting from point A to point B might have involved climbing up a hill, jumping over a rock, balancing on a log to cross a stream or crawling under branches. The Roman and Greek armies were the first to build obstacle training courses as a way of replicating those early environmental challenges. Today, obstacle courses are used by the military throughout the world, as well as thousands of athletes from a variety of sports because of the excellent all-round real life conditioning this form of training provides.

Obstacle Course Fitness combines many of the components of traditional obstacle course training along with movements reminiscent of childhood. These exercises and movement patterns are taught in an exercise class format that can effectively be used in health clubs or studios or home fitness, for 1 to 30 people, ages 5 to 105. What makes Obstacle Course Fitness different from traditional training courses are the myriad opportunities for modification and innovation increasing many important movement benefits? Probably even more important than any of the aforementioned benefits is the fact that it's just plain fun! Fun = consistency which makes you want to come back and do it again! Think back to when you were a child and you would run, crawl, hop and jump your way through the afternoon. Remember climbing on the jungle gym and how much fun you had jumping off a mound of dirt or crawling under the picnic table? As children we used our environment as our playground and let our imaginations be our guide. Obstacle Course Fitness draws on our childhood experience and provides innovative exercises that can be combined to create an endless variety of workouts that are fun, safe, and effective. Obstacle Course Fitness can be taught using the Railyard Fitness Conditioning Course, or without any equipment in most fitness settings. The key ingredient for success is a willingness to let go of your inhibitions and release that forgotten love of play!

### Why Obstacle Course Fitness?

Fitness as we know it today is a relatively new phenomenon. Until recently, human survival was largely dependent on physical capabilities. We needed endurance, speed and agility to hunt, strength to move logs or till the soil for hours on end, and the ability to bend, stretch, squat, climb and easily get up and down off the ground. From a young age, our ancestors were physically challenged on a progressive basis, performing chores and tasks that gradually increased their body's capabilities, affording them a better chance of survival. In short, our ancestor's existence mandated a certain level of what we now term, *functional fitness*.

Functional fitness focuses on building a body capable of performing real-life activities with ease and without injury. Over the past few years, researchers in the fitness industry have discovered that traditional fitness programming may not be supportive of the activities we actually do on a daily basis. It's great to strengthen specific muscles seated at a weight machine, but if we still get a sore back while cleaning the house or playing with our kids or our legs get tired when we go out dancing, something is missing in our

overall level of fitness. Obstacle Course Fitness is based on concepts that promote and support functional fitness.

## **Chapter One**

### **The Principles of Obstacle Course Fitness**

Traditionally, exercise programming has focused on the key components of fitness:

1. Muscular Strength
2. Muscular Endurance
3. Cardiovascular Endurance
4. Flexibility
5. Body Composition

It was believed that the most effective method of achieving overall fitness was to train specific to a desired outcome in each of these components. Therefore, weight training focused on a specific muscle or group of muscles to generate muscular strength and endurance; cardio training was a separate training regimen designed to improve cardiovascular endurance; and flexibility was seen as important largely as a means of preventing muscular injury. What was lacking in this segmented approach was the development of secondary fitness components including;

1. Agility
2. Balance
3. Coordination
4. Dexterity
5. Mobility
6. Reactivity

Today we now recognize that these secondary components are key to optimum overall fitness, or functional fitness.

Obstacle Course Fitness addresses the need to develop *all* components of fitness through performance of exercises and movement patterns based on the following principles:

1. Integration versus isolation of muscle work
2. Control and balance of body weight
3. Use of body weight and gravity as loading factors for resistance
4. Continual, self-paced movement
5. Use of multiple physical planes of movement

## Principle One: Integration versus Isolation of Muscle Work

The human body with all of its amazing various types of joints is designed to move through several planes of motion, in many directions and with varying speeds. The muscles that support and move those joints help define our range of movement. Over time, our bodies adapt to certain defined limitations of movement based on repeated activities. For instance, an office worker sitting at a computer day after day may start to notice their shoulders rolling forward and find it difficult or uncomfortable to fully rotate their arm at the shoulder when it comes time for a weekend softball game. Likewise, sitting in an idealized posture at a weight machine will only work the specific group of muscles put into motion. In both of these situations, working at a computer or a weight machine, muscle movement is *isolated* versus *integrated*.

As noted in the introduction, *functional fitness* focuses on building a body that is capable of performing real-life activities with ease and without injury. Real life activities nearly always involve more than one muscle group, thus a key component of functional fitness training focuses on *integrating and coordinating* the harmony of several muscle groups. Obstacle Course Fitness exercises, whether movement-based or stationary, all require the muscles to learn to work together rather than in isolation.

Let's look at an example of a *movement-based* Obstacle Course Fitness exercise called the *Crabwalk*. To perform the exercise, sit on the ground with both feet flat on the ground, heels aligned under the knees which should be shoulder-width apart. Place hands flat on the ground under the shoulders, fingers facing the feet. Lift the hips up off the ground as high as possible. Hold this position while moving the hands and feet forward. (See Chapter 3 for photos). This exercise is an excellent example of full body muscle integration as you are using the muscles of the legs, arms, shoulders and all of the core muscles, including abdominals, back and glutes.

Obstacle Course Fitness *stationary* exercises such as the *Air Bench* also use more than one muscle group. To perform the exercise stand with the back against a wall, feet hip-width apart, toes facing forward. Lean into the wall and slide down, walking the feet out slightly until the hips and knees are at 90 degree angles. Keep the torso tall, shoulder blades back and into the wall, abdominals contracted. Hold the position for 30 – 60 seconds. (See chapter 3 for photos). Muscles of the thighs, abdominals, glutes and back are all working together in this exercise.

Compare each of these exercises to more traditional muscular training exercises done on weight machines and you'll begin to understand the difference, and the value of muscle integration versus isolation. Not only are more muscle groups engaged, but performance of many of these exercises will additionally foster other motor skills such as balance, coordination and agility.

Another benefit of muscle training with Obstacle Course Fitness is improvement in *muscular endurance*. Muscular endurance is defined as the ability to work a muscle at a sub-maximal level for a period of time, without fatigue. In an Obstacle Course Fitness class, movement-based and stationary exercises are performed continuously for 20 – 60 minutes which generates overall improvements in muscular endurance.



## Principle Two: Control and Balance of Body Weight

Ballet dancers and many athletes have known it for years: Core strength and stability is essential to controlled movement of the limbs and body as a whole. But, where is your core and why is this important?

Your core region is much more than your abdominal muscles. The muscles of your core include your abdominals, hips and spine muscles which all work together to stabilize your spine, pelvis and shoulder girdle. Think of your core area as the balanced base; once stabilized, the body is ready to move and respond in a coordinated, controlled and powerful manner.

A good comparison is to picture a young, newly planted tree. Without the support of wires to hold it in place, it is at the mercy of winds that may blow and cause it to lean in one direction. Over time it will grow crooked, lacking the proper support to maintain an upright, vertical position.

Our spine, pelvis and shoulder girdle are much like that young tree. Without the proper support in all directions we are inclined to develop muscular imbalances, front-to-back and side-to-side, which over time may contribute to back and neck pain, weakened muscles and a lessened ability to perform everyday tasks. The stronger and more balanced the core muscles, the less of an uneven strain on the spine. Strengthening core muscles is thus a key element of maintaining functional fitness.

Building on our discussion in the previous section, an important aspect of core training is to work the muscles of the trunk in an integrated, not isolated, manner to receive the greatest benefit. Doing hundreds of crunches will not yield a strong core.

The *Superman* exercise used in Obstacle Course Fitness is an excellent example of a stationary exercise that uses several muscle groups while strengthening core muscles. Get down on your hands and knees. The hands are placed on the ground shoulder-width apart and the knees are hip-width apart and directly under the hips. Keep the head, neck and back level—like a table top. Holding this position and keeping the hips square to the floor, lift the right arm forward and parallel to the floor while simultaneously extending and lifting the left leg back and parallel to the floor. Bring both limbs back to the starting position and repeat this movement with left arm forward and right leg back. (See *Chapter 3 for photos*). Besides the muscles used to lift your legs and arms, your core muscles are called into action to isometrically stabilize the torso therefore preventing rotation and allow movement of the limbs. By stabilizing your core in this exercise you are also able to maintain balance and coordinate the simultaneous movement of arm and leg.

Another example of an Obstacle Course Fitness exercise that engages core muscles is the *Bear Crawl*. This movement-based exercise starts by standing with both feet on the floor about hip-width apart and pointed straight ahead. Bend over at the hips and place both hands on the ground approximately shoulder width apart. Walk both hands out away from the feet to the point where the body is in an arc from hands to feet—hips being at the highest point. While keeping the body suspended off the ground, walk both hands and feet forward, drawing the knees toward the chest with each step. (See

*Chapter 3 for photos*). As in the previous exercise, core stabilization allows you to protect from strain on the spine and hips and maintain balance.

### **Principle Three: Use of Body Weight and Gravity for Resistance**

As noted at the top of this chapter, muscular strength is an important component of fitness. The definition of strength usually pertains to an amount of force that can be produced maximally by muscles in a single effort. But, true strength comes from the combination of the position of the joint and the efficiency of several muscles working in concert to lift something. This is how strength is applied in real life activities, not by sitting on a machine and isolating a muscle that rarely works exclusively.

The development of strength is relative to what you need it for. Athletes, children at play, construction workers, and busy moms who lift children, do housework and load and unload the family taxi, all need strength for different activities. All of these activities require functional strength that incorporates manipulating one's own body weight, along with a variety of obstacles we face in our path, and doing all of this within the control of gravity. The muscular strength gains obtained through Obstacle Course Fitness will depend entirely on the participant's needs and goals. Through simple exercise modifications, the training can be geared to most anyone, of any fitness level.

Traditional strength training has relied on weight machines or free weights to provide resistance. Repeatedly moving a muscle, or group of muscles against resistance will over time strengthen the muscle(s). Obstacle Course Fitness, with its focus on using multiple groups of muscle simultaneously and strengthening core muscles, uses the body's own weight in combination with gravity to supply the resistance necessary to promote muscular strengthening.

The Crocodile is a movement-based Obstacle Course Fitness Exercise that clearly demonstrates use of the body and gravity to provide resistance. To perform the exercise, get down on hands and knees. Place hands on ground shoulder-width apart or a little wider. The feet are positioned hip-width apart and the balls of the feet are in contact with the floor. Elevate the body off the ground into a push up position—walking the hands away from the feet until the body is in a full push up plank. Bend the elbows to a 90 degree bend. Walk forward in this position. (*See Chapter 3 for photos*). In this exercise, the full weight and length of the body is working against gravity, providing resistance to work the muscles of the arms, shoulders and upper back, along with all core muscles. By varying the speed and how long the exercise is performed the exercise can be adjusted to fit the needs of the class participant.

## **Principle Four: Continual Self-Paced Movement**

As you will learn in the chapter covering class format, Obstacle Course Fitness involves a series of specific exercises performed on a continual basis both on and off of obstacle equipment, such as the Railyard Fitness Conditioning Course. Because the students are moving from one activity to the next, and a large number of muscles are used in most all activities, Obstacle Course Fitness exercises improve cardiovascular fitness by incorporating both aerobic and anaerobic energy systems.

Cardiovascular/respiratory endurance is two-fold: 1) It is the ability of the heart, lungs and circulatory system to deliver more oxygen to the muscle cells and 2) it is the ability of the muscle cells to be able to take up and use that oxygen to produce more energy to support physical exercise. Aerobic exercise (exercise that involves the use of oxygen to produce energy) is known to increase cardiovascular fitness. However, it has mistakenly become synonymous with cardiovascular fitness. Anaerobic exercise (exercise that does not use oxygen, but uses other energy sources—glycogen and ATP-CP) is often ignored or even forgotten as an important component of developing cardiovascular fitness.

Aerobic exercise is lower intensity and can last for a longer amount of time. Anaerobic exercise is high intensity exercise that only lasts for a few minutes. Both of these systems should be used to enhance overall cardiovascular fitness. Aerobic and anaerobic energy systems are engaged in Obstacle Course Fitness by simply adjusting the pace and modifying the exercises and order in which they're performed. This allows students and teachers to modify activities to fit the fitness level and goals of a variety of students in one class. Varying the intensity levels and types of activities is also much more interesting (and fun!) than a straight 30 minutes on the treadmill or stationary bike. Another benefit of cardiovascular training combined with muscular strengthening is an improvement of body composition over time.



## **Principle Five: Use of Multiple Physical Planes of Movement**

If we look back at the first principle, we are reminded that many traditional fitness training methods involve muscle isolation, versus integration. When muscles are worked in a limited, specific movement, such as encountered on a weight machine, the range of motion of the associated joints is also limited. This in turn may limit flexibility, a key component of overall fitness, and likewise lack of flexibility may limit range of motion.

Flexibility involves the ability to move a joint through the normal, full range of motion as a result of the positioning of the joints in relation to the attachments of the muscles. All movements of the joints occur along 3 planes:

1. The frontal plane – right to left movements
2. The sagittal plane – front to back movements
3. The transverse plane – cross section movements

There are several different types of joints in the human body, some with greater range of motion than others. The shoulder joint for instance can move in all 3 planes, while the knee allows movement mainly in the sagittal plane. Training for optimal functional fitness involves training on all 3 planes, ideally in dual or tri-planar movements. Obstacle Course Fitness involves use of multiple planes of movement in many of the exercises.

For instance, walking or skipping in a forward direction may be described as a sagittal plane movement, yet the actions of the individual joints will encompass all 3 planes. Change the forward walk to a side shuffle and the movement is described as moving on the frontal plane, though again the individual joint actions are moving on more than one plane.

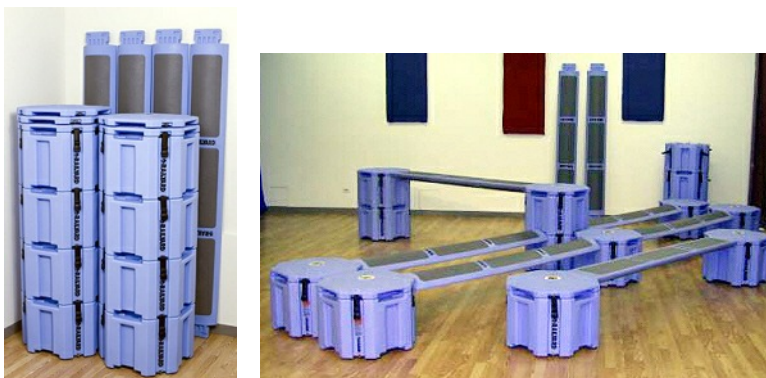
An example of an exercise on the transverse plane might be a golf swing or hand/leg opposite lifts. To perform the latter exercise, lie on the back with both legs extended at the knee and forming a wide “V” and both arms extended back behind the head, also in a wide “V” position. Raise the left leg and right arm up at the same time and bring them together—touching the hand as close to the opposite ankle as possible. Lower both limbs back down to the starting position and repeat on the other side.

While understanding the movements of all the joints on the various planes is interesting, the important thing to remember in terms of teaching Obstacle Course Fitness is that if you’re actively moving more than one joint you are likely using multiple planes of movement. These movements are using your muscles in an integrated manner and are more likely to encourage greater flexibility and range of motion, ultimately contributing to improvements in functional fitness. Flexibility can also be improved by performing stretching exercises at the end of the workout session.

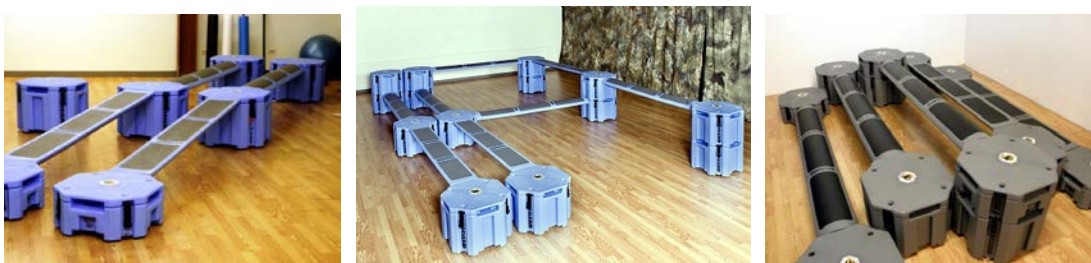
## Chapter Two About the Railyard Fitness Conditioning Course

Obstacle Course Fitness Training can be performed with or without an actual obstacle course, or you can be creative and invent your own! Take your class to the park and use the jungle gym, picnic tables, rocks and hills, or move indoors and use cones, tables and benches. The only limitations are safety and your imagination!

One option favored by many instructors, teachers and coaches is to use the Railyard Fitness Conditioning Course. The Indoor Railyard Course was designed to replicate an outdoor course and was developed by the product team at TherapyZone. The Course is made of structural roto-molded polyurethane rails, platforms and platform tops, all designed to be easily assembled in a variety of configurations and disassembled for easy storage.



The Railyard Fitness components can be arranged in a variety of layouts to fit space, ability level of the user and budget considerations. A rail is seven feet long and is reversible: one side is flat and the other is rounded to create a greater challenge. A platform is either 9 or 18 inches or high and 24 inches wide. There are many Railyard Fitness Course configurations illustrated in this manual. The following pictures show examples of a Railyard Fitness Course configuration that will accommodate a variety of exercise sequences, as well as up to 30 participants at a time.



The exercises and movement patterns in the following chapter will indicate if they can be performed on the ground, and/or on the Railyard Fitness Course.

## Chapter Three

### How to Teach Obstacle Course Fitness

#### General Safety Considerations

As with all fitness activities, safety and making sure the environment is safe and conducive to learning is critical to the participant's well being and success. Follow these steps before and during each class to greatly reduce the chance of an accident occurring.

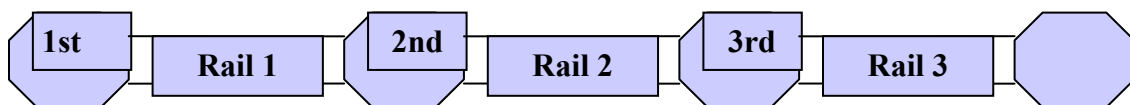
- Always check to make sure that the area where Obstacle Course Fitness activities will occur is safe from debris, obstructions or any potential obstruction.
- Participants should wear closed toe athletic shoes and clothing that does not restrict movement. Long sashes, belts or overly draped clothing should be avoided as a movement hazard. Water should be easily available to class participants.
- When working with first-timers, inquire about any conditions that are currently limiting their physical activities. These might include weakness or past injuries to joints and muscles, limited flexibility and difficulties with balance.
- Always monitor participants during Obstacle Course Fitness activities.

#### Safety Rules for the Railyard Fitness Conditioning Course

##### Set-up

The Railyard Fitness Indoor Conditioning Course consists of platforms and rails. Platforms are labeled as first base, second base, third base and home base. If you have more than 4 platforms, the last platform is called home base with the rest being numbered sequentially.

The following is a basic configuration:



**Before beginning activities, always check that rails are locked and secured into proper position on the platforms and platform tops are in place and fastened properly.**

When using the Railyard Fitness Course for Modified Pull Ups on a 36" rail, it is recommended that you attach 18" rail (that run perpendicular to the 36" rail) to the platforms of the 36" rail. This will give the 36" rail a better base of support. In addition, it is recommended to place mats underneath the Modified Pull Up rail to absorb a fall if the participant's hands slip off the edge.

### **Moving Across the Course**

No matter what movement is being performing, the following rules **MUST** be followed at all times:

**Participants must be aware of the person in front of them. Participants may NOT advance to the next platform until the person in front of them has fully left that station.**

- A participant may step up onto 1<sup>st</sup> base when the person in front of them has left for 2<sup>nd</sup> base.
- A participant may leave for 2<sup>nd</sup> base when the person in front of them has left for 3<sup>rd</sup> base.
- A participant may leave for 3<sup>rd</sup> base when the person in front of them has left for home base.
- A participant may leave for home base when the person in front of them has left home base.

Again, if you have more than 4 bases, the last platform is called home base with the rest being numbered sequentially. **No matter how many platforms and rails are used, no one should advance out onto the rail until the platform in front of them is clear.**

Up to 2 people can use a rail at the same time if being used for a stationary activity, such as push-ups or a side plank.

### **Working with Diverse Skill Levels**

As with most fitness activities, the obstacle course fitness instructor will likely encounter diverse fitness levels in every class. An effective system to help all participants excel is to set up a "buddy" or mentoring type system where a more advanced participant is paired with a less-skilled one. Partnerships are a great support system in that self-confidence, improved physical performance, and ability to interact in team work are all accomplished.

People progress by observing others, as well as practicing the skill over and over again. Participants with strong skills will continue to improve. Those with less skill will practice the skill and try to mimic the action of their more skilled partner. Remember, a key

component to success in Obstacle Course Fitness is the ingredient of fun! Meeting and interacting with new people is a great way to help people relax and enjoy themselves.

As an instructor, it is important to acknowledge the accomplishments of each participant and encourage them to be competitive with themselves, not others. With practice you will learn how to modify the exercises so that everyone is challenged.

## **Class Format**

Obstacle Course Fitness classes can be designed to fit a variety of time schedules, but 45 – 60 minutes is recommended. A shorter class period would be most effective with a small number.

Classes are composed of the following components:

- Warm-up
- Stationary exercises
- Continuous exercises and movement patterns
- Cool-down and stretches

The primary difference between teaching an obstacle course fitness class and other forms of group exercise is that not everyone can be doing the same thing at once throughout the class. Some people may be traversing a rail, while others are waiting for their turn. In order to minimize inactivity while waiting to get on a Railyard Fitness Course, or any other piece of equipment, it is recommended that the class be distributed between enough exercise stations to keep everyone involved in some type of activity. Thus teaching an Obstacle Course Fitness class consists of directing the class through a series or circuit of moving and stationary exercises that keep everyone involved in some form of activity in a wide variety of movement patterns. Participants move to the next station as soon as the person in front of them finishes and moves on.

The number of activity stations and exercises you select for your class will depend on your class number, their fitness level and how quickly they progress through the stations, and the type of equipment you have available. If using the Railyard Fitness Course, the number of rails and platforms will be an important factor: The greater the number of rails and platforms, the fewer the number of additional exercise stations needed. For instance, in a class with 20 participants and 4 rails, 4-6 participants will be on, mounting or dismounting and the others will be at 3-4 other stations.

## **Warm-Up**

Some type of warm-up should be implemented as an integral part of any workout program to prepare the body for vigorous activity. The amount and type of warm-up depends on the activity being performed as well as the age and ability of the participants. Therefore, warm-ups can vary in design depending on who is doing the activity.

A warm-up is literally the act of getting the body warm—elevating the body's temperature. The physiological changes that take place as a result of a warm-up will not

only produce a more effective workout, but will help to prevent injuries. Several physical changes occur as a result of a thorough warm-up, including:

- The muscles and connective tissue are more pliable when they are warm. Think of your tissues as having the elastic properties of a rubber band. When a rubber band is cold, it will break in half when you go to stretch it. If it is warm, it will stretch with no damage. Our tissues act the same way. So, a warm-up will make our tissues more mobile and able to move through the normal range of motion with comfort and ease.
- The blood system can deliver the oxygen we breathe more efficiently when the body is warm. The hemoglobin (which is the oxygen carrying component of our blood) is more efficient at releasing the oxygen it carries to the cells for energy production.
- The neuromuscular system is more efficient as a result of a warm-up. When the body is warm, the electrical impulse conducted by the nerves to the muscles causes the muscle to contract more effectively.
- Warm-up gradually increases oxygen consumption allowing the body to begin to use oxygen for the oxidation of fat for fuel.

An effective warm-up involves starting with low intensity rhythmic movements—keeping the arms and legs at a low level of movement and gradually increasing the range of motion and intensity. Gradually, all joints should be taken through the full range of motion and in a variety of directions to prepare the body for the activities involved in the workout. Activities are basically a low-key version of the movements that will be performed in the general workout. The warm-up should last approximately 8 – 10 minutes. Sample warm-up will be provided in the following chapter.

Stretching can be helpful to improve range of motion and prevent injuries. However, stretches in a warm-up should be performed in a standing position and held for only about 10 – 15 seconds to keep the heart rate from slowing and the body from cooling.

### **Strategies for Developing the General Workout**

Obstacle Course Fitness exercise sequences should be designed to work all major muscle groups in different ways. Carefully review and practice the samples in the following chapter. The example exercise sequences are intended to provide a balanced, challenging and fun routine that consists of a variety of movements—some that are sport specific and some that are movements that will contribute to overall endurance, strength and functional fitness. How you develop your exercise sequences and the stations you include will depend on the types of equipment and apparatus that are available, the number in your class, their skill level and goals. This component should last approximately 30 – 40 minutes.

The exercises have been categorized into three divisions:

1. Forward and backward movements
2. Sideways movements
3. Stationary movements—upright, inverted, prone and supine body positions

**Forward and backward movements** will work the following muscle groups:

- Spinal flexors and extensors
- Hip flexors and extensors
- Knee flexors and extensors
- Ankle flexors and extensors
- Shoulder flexors and extensors
- Elbow flexors and extensors
- Wrist flexors and extensors

**Sideways movements** will work the following muscle groups:

- Hip abductors and adductors
- Ankle everters and inverters
- Shoulder abductors and adductors
- Shoulder horizontal abductors and adductors
- Wrist abductors and adductors
- All muscles involved in forward and backward movements

**Stationary movements** are a combination of any of the above movements without propelling the body forward, backward, or laterally. They will compliment the sequence by offering improvements in strength, flexibility, agility, balance, dexterity and perhaps, talent!

The “Core” is a complex network of musculature and fascia that wrap around the lower spine extending from the diaphragm to the sacroiliac joint and floor of the pelvis. The purpose of the Core is to stabilize and protect the spine and support the center of gravity to allow movement efficiency out to the periphery of the body (arms and legs). The Core collectively includes the spinal flexors (Rectus Abdominis, Internal and External Obliques), Transverse Abdominis, Spinal Extensors (Erector Spinae, Multifidi, Quadratus Lumborum and more), Hip Flexors, Latissimus Dorsi, and other deep muscles of the pelvis and spine that are too many to list.



## Strategies for Developing Railyard Fitness Course Workout

Each exercise session is designed to take your class through a warm up, a Railyard Fitness Course workout and a cool down. Time for each session is based upon a 45 to 50 minute class. Adjust your workout and the exercises to fit the needs of your schedule and your participants.

Each workout should be sequenced in a way that not too much stress is being placed on one body area for more than two exercises in a row. For example, it is not recommended to do bear crawls, crab walks, spiderman crawls and mountain climbers all in a row because they impose too much stress on the wrists. It would be better to intersperse exercises that are performed in a standing position to dissipate where the body weight is loaded. In addition, changing the direction of the movements dissipates the effort to different muscles throughout the workout so that all muscles are used. The following exercise sequence is an example of this strategy:

EXERCISE	BODY SUPPORT	DIRECTION
1. Knee-Up Run	Feet	Forward
2. Side Shuffles	Feet	Sideways
3. Bear Crawls (forward)	Hands & Feet	Forward
4. Crab Walk (backward)	Hands & Feet	Backward
5. Stork Walks (forward)	Feet	Forward
6. Carioca	Feet	Sideways
7. Inch Worm	Hands & Feet	Backward

The Railyard Fitness Course incorporates most of the Railyard Fitness exercises that are performed on the ground, but we categorized certain exercises as easy or difficult to guide the instructor to design their own sequences depending on the ability of the class. Keep in mind that the **rails** on the Railyard Fitness Course **are reversible**, therefore you can use a flat or rounded rail to create the necessary challenges for your group. For example:

Beginner (all on flat rails)	OR	Advanced (all on rounded rails)
Walk the Rail		Stork Walk the Rail
Bear Crawls (forward)		Bear Crawls (backward)
Step Over's (front)		Hop Ups (front)
Modified Over Drills		Over Drills
Incline Pushups		Decline Pushups
Two-Arm Prone Bridges		One-Arm Side Bridges

<b>STANDING EASY</b>	<b>STANDING DIFFICULT</b>
Walk Rail	Walking Lunge
Side Step	Side Squat
Side Shuffle	Karaoke
Step Over's (front)	Hop Ups (front)
Step Over's (sideways)	Hop Ups (sideways)
Modified Over's	Over's
Side Under	Front Under
Stork Walks (forward)	Stork Walks (backward)

<b>CRAWLING EASY</b>	<b>CRAWLING DIFFICULT</b>
Bear Crawl (forward or backward)	Crocodile
Crab Walk (forward or backward)	Bear Walk Sideways (on double rail)
Inch Worm	Crab Walk Sideways (on double rail)
Spiderman	

<b>STATIONARY EASY</b>	<b>STATIONARY DIFFICULT</b>
Incline Push Ups	Decline Push Ups
Two-Arm Prone Bridge	One-Arm Side Bridge
Pull Up (parallel to rail)	Pull Up (perpendicular to rail)
Supine Hip Bridge	Donkey Kicks

<b>EXAMPLE: EASY &amp; DIFFICULT</b>	<b>EXAMPLE: EASY &amp; DIFFICULT</b>
Walk Rail	Walking Lunge across the Rail
Side Squat (right)	Side Step (right)
Side Squat (left)	Side Step (left)
Bear Crawl (forward)	Crocodile
Donkey Kicks	Inch Worm
Step Over's (front)	Hop Ups (front)
Crab Walks (forward)	Bear Crawls (backward)
Over's	Modified Over's
Side Under	Front Under
Two-Arm Prone Bridge	One-Arm Side Bridge

Push Ups (decline)	Push Ups (incline)
Pull Ups (parallel to the rail)	Pull Ups (perpendicular to the rail)

### **Incorporating Other Equipment**

Fitness classes can include exercises that are not designated as “Obstacle Course Fitness.” There are many possibilities to set up circuits that offer a wide variety of beneficial and fun activities. In order to minimize inactivity while waiting to get on a Railyard Fitness Course, it is recommended that the class be distributed between enough exercise stations to keep everyone involved in some type of activity. The stations you can have depend on the types of additional equipment and apparatus in your facility that is available to you. The following are examples of other potential exercise stations:

1. Stability Ball (SB) Ab Crunches
2. Speed Squats
3. Jump Ropes
4. Medicine Ball Bounces
5. Speed Rings
6. Agility Ladders
7. Medicine Ball (MB) throws against a wall
8. Short hurdles made from strings attached to cones
9. Resistance bands pulling and pushing

The following is an example of how to incorporate obstacle Course Fitness into an exercise circuit using equipment. Each station is across the gym or length of a room from another station. An Obstacle Course Fitness exercise is performed from one station to the next. The participants are distributed equally between all stations and they flow in a pre-set direction so that everyone finishes all stations at approximately the same time. You can have as many stations as needed to accommodate your class size.

Example:



## **Teaching the Exercises**

When teaching Obstacle Course Fitness to a new group it is important that everyone learn the proper form and execution of the exercises that you'll be using in the general workout. For example, most participants will probably know how to do a push-up, but many may be unfamiliar with a crab walk or superman. After a warm-up, demonstrate each exercise on the floor and have everyone try the exercises as a group, before separating the class into different groups starting at different stations. Participants should not attempt exercises on the Railyard Conditioning Course until they are able to correctly perform the exercises on the ground. A good practice method is to have them perform the exercises on a line on the ground, replicating the Railyard rail.

## **Instructional Tips**

As participants will be performing different exercises at different times; it is important to familiarize everyone with the course prior to beginning. Start by showing them a diagram of the course and then explain the use of any equipment that will be incorporated, such as balls or weights. Finally, put participants in their groups and demonstrate the course, especially any new exercises.

## **An Added Touch of Fun**

Obstacle Course Fitness is inherently fun for adults simply because so many of the movements mimic childhood activities. Getting down on all fours, crawling and hopping on one foot are movements we tend to leave behind as we age.

Balls, bands and other hand-held exercise equipment can add fun to the workout. Using different types of music is another great way to add variety to your classes. Partner activities are also fun for adults who are usually more inclined to workout on their own.

## **Cool-Down**

A cool-down takes the body from the stimulation of vigorous exercise back to its normal resting state by gradually slowing down the moves. This lowers the heart rate and allows the muscles to relax. The cool down is the best time to do longer sustained stretches (15 – 30 seconds) because the body is very warm and the muscles and other connective tissues will better respond to stretching. The end result is eliminating muscle tension that was developed during the workout. In addition, this is a good time to practice deep breathing to re-energize the body. The cool-down should last approximately 8 – 10 minutes.

## **Chapter Four**

### **The Exercises and Movement Patterns**

#### **Overview**

As we learned in the introduction, Obstacle Course Fitness is based on man's early need to overcome physical obstacles in his path in order to get from Point A to Point B. This has evolved into a fitness program based on the same three types of movement patterns as they relate to an obstacle:

1. Moving up and down and over
2. Moving under
3. Moving around

These three movement patterns, done in combination with stationary exercises, form the basis for Obstacle Course Fitness. How these exercises are taught in order to accommodate the needs of a variety of fitness levels and make it fun will be covered in Chapter Three.

#### **Moving Up and Down and Over**

For children, climbing is a natural instinct. Whether it's scaling the neighbor's fence, climbing a tree in the park or scrambling up and down the jungle gym, climbing is a part of childhood play. As we age however, we are conditioned by well-meaning parents and teachers to avoid climbing and grow to regard obstacles as something to only go around, not over.

Our lives however, still require a certain degree of climbing. We might take the stairs versus an elevator, or need to climb up on a ladder to change a light bulb or paint a wall. Yet for many adults, these tasks can be tiring, hard on the knees, or just plain scary. Losing these abilities is a loss of functional fitness.

To understand how Obstacle Course Fitness encourages moving up, down and over, picture a stationary bench. With this bench you can climb on top of it, step up and down, climb over it, jump up on to it and jump down, or even roll or jump over it. Activities are selected based on your participant's abilities and your training goals. For example, jumping up on to a bench versus stepping up is a more difficult movement and when repeated, will have different training outcomes.

#### **Moving Under**

As we've learned, muscular injuries can occur while doing everyday activities such as bending over and picking up something off of the floor, if our bodies are not kept in condition to perform functional movement. Unfortunately, as we age bending, getting up and down off of the ground, or crawling under something becomes more difficult and we tend to avoid those movements, which only reinforces our inabilities and fears of

injury. Children on the other hand, will instinctively get up and down off of the floor, and get on all fours or their bellies to move along the floor or crawl under something. In Obstacle Course Fitness, bending over, getting up and down off of the ground, crawling under an obstacle and moving along the floor on all fours are movements included to encourage functional fitness.

## **Moving Around**

From the time we can walk, we spend most of our time moving forward and to a lesser degree, backward. For many people, continual movements to one side or the other feel awkward or tiring. For instance, the recreational tennis player might find his or her legs tiring or knees hurting because they are unaccustomed to extended lateral movement.

Lateral movements around an object and from side to side encourage core strength, the strengthening of leg muscles and lower body joints as well as agility and coordination. In Obstacle Course Fitness, lateral movements are performed both on the ground and on elevated rails or benches.

## **How to Mount and Dismount the Railyard Conditioning Course**

There are basically two ways to mount and dismount the Railyard. You either step up or down or jump up or down. The selected method may be determined by fitness levels, coordination and balance. Safety is the primary concern.

### **Mounting the Railyard**

Stepping up - Begin by positioning yourself close to the Railyard either near a platform or near a long rail. You can either align yourself perpendicular or parallel to the Railyard. Your feet should be shoulder width apart. Place your hands behind your head or hold your arms straight out in front of you. Place your foot on top of the rail then Step up with either leg onto the rail. Alternate legs as you move through the Course or if performing the step up exercise in that station.

Jumping up - Stand facing the Railyard Platform or rail with your feet about shoulder-width apart and your hands resting by your sides or fingers laced behind your head. Lower your body slightly and as you reach a half-squat position, push with both legs using an explosive motion, jump up and onto either a platform or rail. Both feet should land softly on the balls of your feet at the same time. Step back down to the ground and repeat if performing as an exercise in that station.

### **Dismounting the Railyard**

Stepping off – Standing perpendicular or parallel on the rail, step off with one foot at a time, alternating feet on each dismount.

Jumping off - As you stand on the platform or rail near the edge your feet should be shoulder width apart with hands behind your head or held out in front of you. Jump off, landing softly on the balls of both feet at the same time. Make sure to soften the knees as you land. Note: Placing hands behind the head or extended in front helps the exerciser maintain an upright body posture.

### Chart of All Obstacle Course Fitness Exercises

The following chart categorizes all obstacle Course Fitness exercises that can be done on the ground and on the Railyard Fitness Conditioning Course into different directions (forwards, backwards and sideways) and body positions (stationary, incline, decline, prone and supine). *The exercises that are marked with an **asterisk** can only be done on the Railyard Fitness Course.* All workout plans should include some exercises from all three categories in order to achieve a reasonable amount of muscle balance and functional fitness.

FORWARD/BACKWARD	SIDEWAYS	STATIONARY
One-Legged Hop	Bear Crawls (sideways)	Ab Crunch
Two-Legged Hop	Lateral Lunge	Air Bench
Army Crawl Walkouts	Crab Walks (sideways)	Donkey Kicks
Bear Crawl (forward/backward)	Hop Ups (sideways)*	Full Sit Ups
Bunny Hop	Carioca	Hand Stand (assisted or free)
Buttkicker Run	Modified Over Drills *	Hand/Leg Supine Opposite Lifts
Crab Walk (forward/backward)	Over Drills *	Hip Lifts
Crocodile	Side Shuffle	Hip Flexor Lifts
Duck Walk	Side Under	Mountain Climber
Front Unders	Side Squat	One-Arm Side Bridge
Function Run	Step Overs (sideways)*	Pull Ups (perpendicular to or under the beam) *
Hop Ups (front) *		Push Ups (incline/decline)*
Hopscotch		Push Ups (modified, regular, or wall)
Inch Worm		Sloth *
Knee Up Run		Superman's
Spiderman Crawl		Supine Back Bend Bridge
Step Overs (front) *		Supine Hip Bridge
Stork Walk (forward/backward)		Two-Arm Prone Bridge
Walking Lunge *		Two-Arm Supine Bridge



## Muscle Involvement in Obstacle Course Fitness Exercises

In chapter one, The Principles behind Obstacle Course Fitness,” **Principle One** discussed integration versus isolation of muscle work: it stated “Obstacle Course Fitness promotes functional fitness...thus a key component of functional fitness training focuses on integrating the work of several muscle groups.” The fact is, most of the Railyard Obstacle exercises involve the use of dozens of muscles working in all three planes of motion and using both upper and lower body muscles at some point in the movement pattern.

Therefore, because of the complexity of each of the exercises, it is prohibitory to list each muscle that is used. In the “muscles involved” section of the following chart, the muscles will be discussed in terms of their collective contribution to perform the specific joint actions involved throughout the exercise. This is demonstrated in chapter three on page 14 (spinal flexors and extensors; core, knee flexors and extensors; hip abductors and adductors, etc.) and it would be beneficial to review this section before continuing on to the following chart. When referring to the Core, the reference is regarding stabilization, not movement.

Finally, because of the flexibility, strength and skill variation of the participants, body position is not exactly the same for each person. Therefore, some muscle groups listed in the “muscles involved” section may be used more by one person than another.

### The Exercises

Review and practice all of the following exercises, including any modifications, until you are comfortable and can easily demonstrate the correct form and provide cues.

#### Forward/Backward Movement

<b>Exercise</b>	<b>One Legged Hop</b>
<b>Purpose</b>	Single leg activities are excellent ways to work on strength and balance, stability and power. There will be more of a lateral gluteal dominance than in the two legged hop.
<b>Involved Muscles</b>	Hip, Knee and Ankle flexors and extensors; Hip abductors; Spinal flexors and extensors; Core; Shoulder flexors and extensors; Calves; Anterior Tibialis
<b>Action</b>	Using gravity as a loading mechanism and while standing on 1 leg, lower your body into a ¼ depth squat, immediately change direction upward and push into the ground while using your arms to help propel off the ground. Land and repeat with minimal ground contact time.
<b>Variations</b>	Standing in place, moving forward, backward, or sideways.

<b>Exercise</b>	<b>Two Legged Hops</b>
<b>Purpose</b>	Two legged hops are a moderate level type of plyometric exercise used to enhance power. There is an increased demand on the quadriceps and glutes and allows the body to prepare for a greater force output.
<b>Involved Muscles</b>	Hip, Knee and Ankle flexors and extensors; Spinal flexors and extensors; Core; Shoulder flexors and extensors
<b>Action</b>	Using gravity as a loading mechanism and while standing on both legs, lower your body into a ¼ depth squat, immediately change direction upward and push into the ground while using your arms as momentum to help propel off the ground. Land and repeat with minimal ground contact time.
<b>Variations</b>	Standing in place, moving forward, backward, or sideways. Two Legged Hops can be used to mount the Railyard Fitness Course.

<b>Exercise</b>	<b>Crawl Patterns (General)</b>
<b>Purpose</b>	Crawl patterns are integrative movements that can improve strength, endurance, power, balance, coordination, and agility and conditioning benefits because they use both the lower and the upper body. As humans, we crawled before we walked so it is a natural human movement.
<b>Involved Muscles</b>	(See specific exercises below)
<b>Action</b>	(See specific exercises below)
<b>Variations</b>	Variations of crawl patterns can be done on the ground as a beginning program. The Railyard Obstacle course can be added to increase challenge in an intermediate to advanced program.



<b>Exercise</b>	<b>Army Crawl Walkouts</b>
<b>Purpose</b>	Army crawls are challenging because of the length of the levers (arms and legs) in relationship to the ground as well as the smaller nature of movements to become locomotive.
<b>Involved Muscles</b>	Shoulder flexors, extensors, Scapular stabilizers; Elbow extensors; Spinal Flexors and Extensors; Core; Hip flexors, extensors; Knee and Ankle flexors and extensors.
<b>Action</b>	Crawl forward with your weight on forearms and toes, keeping butt down and knees pointing outward. Bring 1 leg forward .Get as low as you can. You then transfer your weight to the bent leg and forward elbow and push yourself ahead until your forward arm comes in contact with your body and your legs are even and extended. Repeat with other arm and leg. Keep your hips down!!!
<b>Variations</b>	Crawls can be performed forwards, sideways and backwards. To increase the challenge, elevate the exercise onto the Railyard.



<b>Exercise</b>	<b>Bear Crawl</b>
<b>Purpose</b>	An excellent closed chain total body strength training exercise for improving core strength and body control. This quadruped movement helps develop coordination and agility while also increasing cardio respiratory endurance due to the fact the heart and lungs have to work harder in the prone position.
<b>Involved Muscles</b>	Shoulder flexors, extensors; Scapular stabilizers; Elbow extensors; Core; Hip flexors, extensors; Knee and Ankle flexors and extensors.
<b>Action</b>	Keep your weight evenly distributed over the legs and arms and keep it buoyant. Maintain a flat back. The most basic pattern is the contra lateral crawl where you move opposite arm and leg simultaneously in a forward or backward crawling pattern. Crawl on all fours alternating your body weight from side to side.
<b>Variations</b>	Contra lateral (opposite side arm and leg move together). Ipsilateral (same side arm and leg move together). Can be performed moving forward, backwards, or sideways and elevated on the Railyard.



<b>Exercise</b>	<b>Bunny Hops</b>
<b>Purpose</b>	Plyometric exercise used to promote power.
<b>Involved Muscles</b>	Hip, Knee and Ankle flexors and extensors; Spinal flexors and extensors; Core; Shoulder flexors and extensors
<b>Action</b>	Using gravity as a loading mechanism and while standing on both legs, squat slightly, immediately change direction upward and push into the ground while using your arms as momentum to help propel off the ground. Continue moving forward with a series of quick short hops. Similar to the two-legged hop but not as deep a squat or long a hop.
<b>Variations</b>	Move sideways or backwards.

<b>Exercise</b>	<b>Buttkicker Run</b>
<b>Purpose</b>	This type of running is opposite of “high knee running” and often used by runners, sports conditioning enthusiasts and other athletes to improve the strength of the Hamstrings and provide more balance to the entire thigh as well as provide variety to exercising through the action of running.
<b>Involved Muscles</b>	Hip, Knee and Ankle flexors and extensors; Core; Shoulder flexors and extensors
<b>Action</b>	This is a normal jog stride, but the action of the trail leg is enhanced by flexing the knee as far as possible and bringing the heel of that foot as close to the butt as possible. As you jog, the lead leg performs a normal stride out and the foot contacts the ground with the heel first and then rolls out to the ball and then the toes, as in normal jogging.
<b>Variations</b>	Intensity can be varied by speed of running and height of leg flexion.

<b>Exercise</b>	<b>Crab Walks</b>
<b>Purpose</b>	A Unique way to develop hamstring strength in a closed chain environment as well as triceps endurance. Similar quadrupedal movements as the other crawl exercises but done in a supine position.
<b>Involved Muscles</b>	Shoulder flexors, extensors, abductors, horizontal adductors and abductors; Scapular stabilizers; Elbow extensors; Core; Hip flexors, extensors; Knee and Ankle flexors and extensors.
<b>Action</b>	Sit on the ground with both feet hip width apart, feet aligned under knees. Lift body keeping arms under shoulders, fingers facing feet. Walk forward, keeping the body lifted.
<b>Variations</b>	Can be performed moving forward, backwards, or sideways. Increase the intensity by elevating onto the Railyard, use one or two rails.



<b>Exercise</b>	<b>Crocodile Walk</b>
<b>Purpose</b>	Great way to strengthen the scapular complex and core.
<b>Involved Muscles</b>	Shoulder flexors, extensors, abductors, horizontal adductors and abductors; Scapular stabilizers; Elbow extensors; Core; Hip flexors and extensors; Knee flexors and extensors.
<b>Action</b>	In a prone push up position, with arms bent at 90 degrees, brace the abs and squeeze the glutes to keep the torso steady. Walk the upper and lower body forward, simultaneously.
<b>Variations</b>	Can be performed moving forward or backwards. Pull a weight plate for added resistance. Use two rails and walk across the Railyard.



<b>Exercise</b>	<b>Duck Walk</b>
<b>Purpose</b>	An extreme bodyweight exercise for glutes, hamstrings and quadriceps
<b>Involved Muscles</b>	Hip and knee flexors and extensors; Ankle flexors, extensors, inverters and everters; Core; Shoulder abduction, horizontal abduction and internal rotation
<b>Action</b>	Begin in a standing position with feet shoulder width apart. Lower into a squat where your feet stay flat on the ground and your hips shift back to maintain your balance. While in the lowered position begin walking forward or backward.
<b>Variations</b>	Add a resistance band to your ankles go deeper than parallel ( caution: This places additional stress on the knees) Increase the challenge by walking across the rail.



<b>Exercise</b>	<b>Front Unders</b>
<b>Purpose</b>	Allows you to train the entire spine by moving from flexion to extension in one motion.
<b>Involved Muscles</b>	Spinal, Hip, Knee and Ankle flexors and extensors; Core; Spinal rotators
<b>Action</b>	Facing the Railyard, place a foot underneath at far side. Bend both legs to 90 as you flex forward at waist. Reach body forward until you can extend the spine and raise the head as you step forward and out to other side.
<b>Variations</b>	Regress by using a higher rail and/or place hands on ground for assistance.

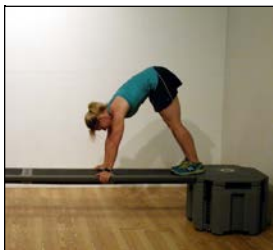


<b>Exercise</b>	<b>Hop-Ups</b>
<b>Purpose</b>	Can be a low to moderate intensity exercise depending on whether you are jumping up or jumping down. Hop ups are used to generate power in the legs.
<b>Involved Muscles</b>	Hip, Knee and Ankle flexors and extensors; Spinal flexors and extensors; Core; Shoulder and Elbow flexors and extensors
<b>Action</b>	Prepare to jump by facing Railyard. Lower body by flexing knees and dropping hips backwards. Change direction then push feet into ground as you propel yourself onto the Railyard. Make sure to land with soft feet.
<b>Variations</b>	Jump onto rounded side, jump from double leg to single leg, or jump from single to double leg. Can also be performed jumping to the side.



<b>Exercise</b>	<b>Hop Scotch</b>
<b>Purpose</b>	An old favorite that works on foot speed, balance, and gross motor coordination. As you move your body to 1 leg your center of mass moves and you're forced to readjust.
<b>Involved Muscles</b>	Hip, Knee and Ankle flexors and extensors; Hip abductors and adductors; Core;
<b>Action</b>	Stand with feet about hip-width apart. Hop forward onto one foot. Now push up and hop, landing on both feet. Alternate landing on one foot, then both; right foot, both feet, left foot, both feet, and so on.
<b>Variations</b>	This exercise should be performed on the ground only. May be performed backwards.

<b>Exercise</b>	<b>Inchworm</b>
<b>Purpose</b>	A full body exercise that mimics the motion of an inchworm
<b>Involved Muscles</b>	Shoulder flexors, extensors; Scapular stabilizers; Elbow extensors; Spinal Flexors and Extensors; Core; Hip flexors, extensors; Knee and Ankle flexors and extensors.
<b>Action</b>	Stand with your feet hip width. Hinge forward at the waist and touch the floor with your palms. Keep your legs as straight as possible. Walk your hands forward until you are supporting all your weight on your hands and toes in a push up position. Your body should make a straight line and your hands should line up with your shoulders Walk your feet forward to meet your hands. Keep your palms on the floor and bend your knees. Repeat for the desired reps.
<b>Variations</b>	Can be done with a single leg. Add a push up in the bottom position. Can be done on the rail for added difficulty.



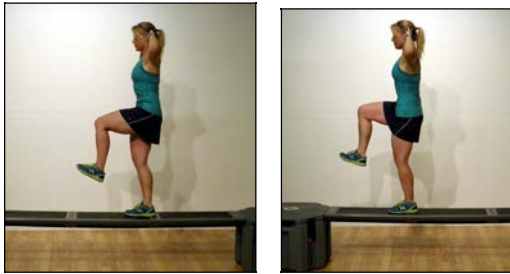


<b>Exercise</b>	<b>Knee-Up Run</b>
<b>Purpose</b>	Commonly known as “high knee running” and often used by runners and other athletes to improve form, lower body speed, power, and flexibility of hip flexors, abductors and adductors.
<b>Involved Muscles</b>	Hip, Knee and Ankle flexors and extensors; Core; Shoulder flexors and extensors; Elbow flexors
<b>Action</b>	Stand in place with your feet hip-width apart. Drive your knee toward your chest and quickly place it back on the ground landing on the balls of your feet. Keep shin and calf muscle engaged to insure proper form. Follow immediately by driving your other knee toward your chest. Continue to alternate knees as quickly as you can. Arms should be flexed at elbow.
<b>Variations</b>	Exercise may be performed moving forward, backward or sideways. Intensity can be varied by speed and height of knee lift.

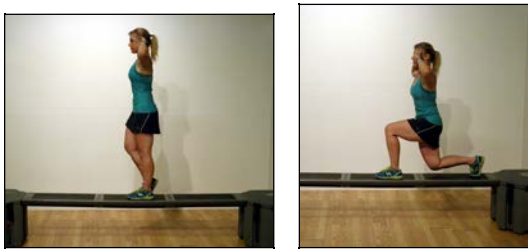
<b>Exercise</b>	<b>Spiderman Crawl</b>
<b>Purpose</b>	Great way to strengthen the scapular complex and stabilize core muscles. Leg action improves hip mobility and hamstring flexibility.
<b>Involved Muscles</b>	Shoulder flexors, extensors; Scapular stabilizers; Elbow extensors; Core; Hip flexors, extensors, abductors and adductors; Knee and Ankle flexors and extensors.
<b>Action</b>	Start in a prone position on hands and feet. Take a long step forward with the right foot to the outside of the right arm. Right arm and left arm should be even with left leg stretched back. Walk your hands forward starting with the right hand then step forward with the left foot to the outside of left foot. Continue moving forward.
<b>Variations</b>	May be performed on the ground or a double beam Railyard course, forward, backwards, or sideways. Torso may be elevated or lowered.



<b>Exercise</b>	<b>Stork Walk</b>
<b>Purpose</b>	A challenging exercise that will help improve posture, core stability and balance.
<b>Involved Muscles</b>	Hip, Knee and Ankle flexors and extensors; Core; Scapular stabilizers; Shoulder abduction, horizontal abduction and internal rotation
<b>Action</b>	Stand with a neutral pelvis, fingers behind head and elbows out to the side. Walk forward, raising the knees to a 90 degree angle with the hips with each step. Lower the foot, heel first with the foot in a flexed position. Repeat. Moving backward, the ball of the foot should hit the ground first.
<b>Variations</b>	Variations include landing in a lunge, holding the hands overhead, adding a torso twist and working one leg at a time. Elevate onto the rail for challenge.



<b>Exercise</b>	<b>Walking Lunge</b>
<b>Purpose</b>	A popular exercise that fills many purposes: Improves lower body strength, range of motion, running speed, balance and power. The results will be dependent on how your lunge is maneuvered.
<b>Involved Muscles</b>	Hip, Knee and Ankle flexors and extensors; Spinal flexors and extensors; Core.
<b>Action</b>	Start with feet hip-width apart and pointed ahead. Step forward with the right foot as in walking forward, but extend the reach of the step about two feet farther out than a normal walking stride until the knee is ideally at a 90 degree angle. Arms can be at sides, at waist, or behind head.
<b>Variations</b>	Exercise may be performed moving forward, backward, or sideways. Hand-held weights can be added for resistance. Add arm movements in. Walk forward or backward on the rail.



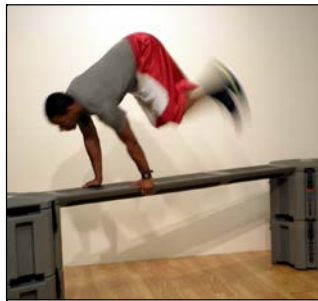
## Sideways Movement

<b>Exercise</b>	<b>Carioca (Grapevine)</b>
<b>Purpose</b>	The Carioca is an agility /mobility drill designed to help you change planes of motion, gain foot speed and transition from one position to another on the athletic field or court.
<b>Involved Muscles</b>	Hip abductors and adductors, flexors, extensors; Spinal rotators; Core; Shoulder abductors, adductors, horizontal abductors and adductors and stabilizers.
<b>Action</b>	Standing upright start by moving the back leg across the front of the body to the opposite side; move the other leg laterally in the same direction then take the leg you started with and move it behind the other leg in the same position as the first movement. Continue to your desired distance and stay on balls of your feet.
<b>Variations</b>	Take larger rotational steps. Hold arms steady parallel with floor or place hands on hips.

<b>Exercise</b>	<b>Modified Over Drills</b>
<b>Purpose</b>	Teaches full body explosive power by using the muscles of the posterior chain.
<b>Involved Muscles</b>	Shoulder flexion, extension, horizontal abduction and adduction; Hip flexion, extension, abduction, adduction; Spinal flexion and extension; Core; Knee and Ankle flexion and extension
<b>Action</b>	Standing on the left side of a rail—place both hands on top of the rail with the left hand in front of the right hand. Push off the floor using the muscles of the lower body. Push hips up into the air as you bring your feet to the top of the rail. Begin to move forward and switch hands and place other hand forward. This exercise uses a continual momentum to move quickly onto the top of the rail then over to the other side.
<b>Variations</b>	Straddle the rail and place both feet on top. Straddle the rail and place one foot on top; then alternate to other. Move forward and backward on the rail with each over movement.

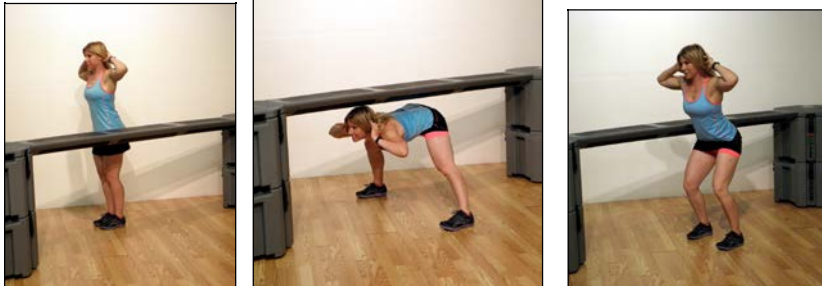


<b>Exercise</b>	<b>Over Drills</b>
<b>Purpose</b>	Teaches full body explosive power by using the muscles of the posterior chain.
<b>Involved Muscles</b>	Shoulder flexion, extension, horizontal abduction and adduction; Hip flexion, extension, abduction, adduction; Spinal flexion and extension; Core; Knee and Ankle flexion and extension
<b>Action</b>	Standing on the left side of a rail—place both hands on top of the rail with the left hand in front of the right hand. Push off the floor using the muscles of the lower body. Push hips up into the air as you bring your feet to other side. Begin to move forward and switch hands and place other hand forward. This exercise uses a continual momentum to move quickly in a forward movement along the length of the rail.
<b>Variations</b>	Reverse direction and jump backwards.

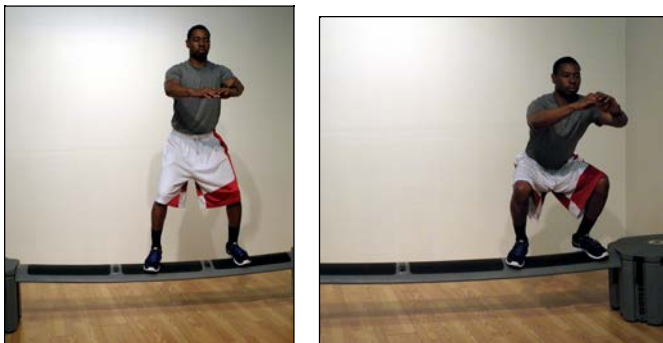


<b>Exercise</b>	<b>Side Shuffle</b>
<b>Purpose</b>	The shuffle is a frontal plane agility exercises to teach the body how to move sideways.
<b>Involved Muscles</b>	Hip abduction, adduction, flexion, extension; Core; Knee and Ankle flexion and extension
<b>Action</b>	Stand with feet hip width apart, arms out to sides, feet facing forward. Knees should be slightly bent. Push off the left leg and bring it quickly towards the right. Land the left leg and immediately push-off again. Continue the desired distance.
<b>Variations</b>	Stop on command; stop on command and return to start. Change speed or direction.

<b>Exercise</b>	<b>Side Unders</b>
<b>Purpose</b>	Frontal plane development due to lateral shift of the body as you progress from side to side.
<b>Involved Muscles</b>	Spinal flexors, extensors, rotators; Hip flexors, extensors, abductors and adductors; Knee and Ankle flexors and extensors
<b>Action</b>	Stand at the side of the Railyard. Bend forward and place one leg laterally under the beam. Squat low and shift body weight from one side to the other until you can bring your head up on the other side.
<b>Variations</b>	Regress by using a higher beam and/or place hands on ground for assistance. You can also change and start the motion on one side, and then the other, or go back and forth.



<b>Exercise</b>	<b>Side Squats (Lateral Squat)</b>
<b>Purpose</b>	A frontal plane lower body movement pattern that can be used to improve strength and flexibility.
<b>Involved Muscles</b>	Hip flexors, extensors, abductors and adductors; Spinal flexors and extensors; Core; Knee and Ankle flexors, extensors
<b>Action</b>	Stand with feet hip width apart. Take a large step to the right. Drive lead hip back and lower into a squat position. Keep weight on heels and right knee behind toes with back straight. Drive up into standing position as the left foot moves to the right. Continue for desired reps or distance.
<b>Variations</b>	Add resistance or increase speed.

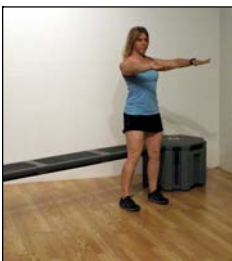


## Stationary Exercises

<b>Exercise</b>	<b>Ab Crunches</b>
<b>Purpose</b>	To strengthen the abdominal wall
<b>Involved Muscles</b>	Spinal flexors (Rectus abdominus, internal and external obliques); Core
<b>Action</b>	Lying supine on the surface of choice placing your hands behind your head or across your chest. Pull your belly button towards your spine, and flatten your lower back against the floor. Slowly contract your abdominals, bringing your shoulder blades about one or two inches off the surface. Hold at the top of the movement for a few seconds, then lower yourself slowly and repeat.
<b>Variations</b>	Can be done on a stability ball. Elevate feet onto the rail. Place mat across rail and lay on rail.



<b>Exercise</b>	<b>Wall Squats</b>
<b>Purpose</b>	A popular Isometric exercise due to a minimal amount of shearing on the knee and flexion in the spine. Promotes leg and glute strength.
<b>Involved Muscles</b>	Quads, hamstrings, glutes and calves are isometrically contracting; Core
<b>Action</b>	Lean against a wall and lower the body to a 90 degree knee & hip flexion. Hold position for desired amount of time. Keep shoulder blades against the wall and the abs tight.
<b>Variations</b>	Add resistance; add a stability ball behind the back; place a ball between the knees for more adduction; place a band around the knees for more abduction. Lift one foot off the ground for 2-3 seconds. Stagger foot stance to an offset squat.



<b>Exercise</b>	<b>Donkey Kicks</b>
<b>Purpose</b>	Teach open chain hip extensions for developing the posterior chain.
<b>Involved Muscles</b>	Shoulder flexion, extension; Hip flexion, extension; Spinal flexion and extension; Core; Elbow extension, Knee and Ankle flexion and extension
<b>Action</b>	From a standing position, bend over and place both hands shoulder-width apart on the ground or on the Railyard. Using a little momentum as you set up, kick both feet up behind the body while keeping the knees bent through the first half of the motion. When hips are above the shoulders begin extending the legs straight up.
<b>Variations</b>	Single arm. Single leg donkey kick.



<b>Exercise</b>	<b>Full Sit-Ups</b>
<b>Purpose</b>	Sit-ups are very popular. If used for training abs (and not hip flexors) then they must pull the torso upward from a lying position toward the knees using only the abdominal group and not the hip flexors.
<b>Involved Muscles</b>	Spinal and Hip flexors; Core
<b>Action</b>	Lie on your back and bend your knees to about 90° with your feet flat on the floor. Don't anchor your feet, because doing so will bring leg and hip flexor muscles into the action. With hand behind head, elbows out to the side, lift upper torso to a vertical position. Lower and repeat.
<b>Variations</b>	Place a pad under back to reduce range of motion. Change position of the arms or add resistance.



<b>Exercise</b>	<b>Hand Stand</b>
<b>Purpose</b>	A challenging isometric upper body exercise that improves muscle strength and endurance of upper body.
<b>Involved Muscles</b>	Shoulder flexion, extension; Elbow extension; Hip flexion, extension; Spinal flexion and extension; Core; Knee and Ankle flexion and extension
<b>Action</b>	Assume a standing position with the leg you will be kicking up with a little behind the other. Bend forward at the waist with your arms hanging loosely. As you bend forward your leg will raise up in line with your torso or close to it and kick up against a wall. Your arms should remain perpendicular and rigid to the ground at all times. When the hands touch the ground you'll kick with the other leg and they should meet up overhead.
<b>Variations</b>	Can be done as a free position hand stand without the wall. Can also be assisted by another person.

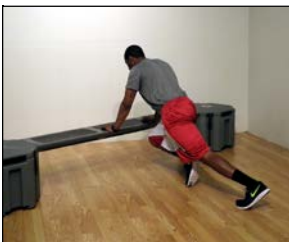


<b>Exercise</b>	<b>Hand/Leg Supine Opposite Lifts</b>
<b>Purpose</b>	Core strengthening exercise that can be challenging if done properly.
<b>Involved Muscles</b>	Shoulder, Hip, Spine and Knee flexion and extension; Core.
<b>Action</b>	Lie on the back with both legs extended at the knee and forming a wide "V" and both arms extended back behind the head, also in a wide "V" position. Raise the left leg and right arm up at the same time and bring them together. Lower and repeat with other arm and leg.
<b>Variations</b>	Shorten lever by lowering arms and/or legs.

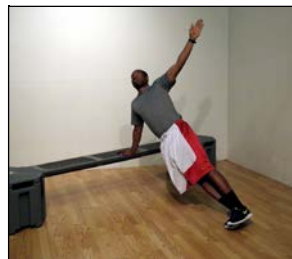
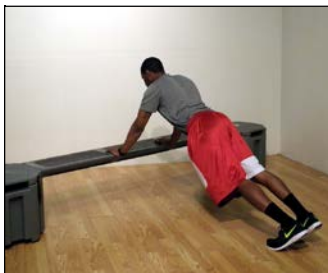
<b>Exercise</b>	<b>Hip Lifts</b>
<b>Purpose</b>	Hip extension exercises are important to counter balance the amount of flexion we encounter in a day.
<b>Involved Muscles</b>	Spine and Hip flexion; Hip adduction, Core
<b>Action</b>	Lie on your back with your feet on the floor. Cross one ankle/foot over to the opposite knee, just above the knee. Lift the foot that is still on the ground up until your calf is parallel to the ground and the knee is bent at a 90 degree angle. Pull the knee holding your ankle toward you and hold for about 30 seconds. Repeat on other side.
<b>Variations</b>	Raise the leg less; add resistance to hips. Place stable foot on the rail.



<b>Exercise</b>	<b>Mountain Climber</b>
<b>Purpose</b>	Classified as a callisthenic the mountain climber is a cardio builder that uses your own bodyweight to build endurance.
<b>Involved Muscles</b>	All Shoulder and arm muscles isometrically engaged, Scapular stabilizers, Core; Hip, Knee and Ankle flexors and extensors
<b>Action</b>	Start in a push-up position and make sure to keep your head inline with the body and your abs drawn in tight. Bring the right knee to the chest then back to the start. Quickly alternate to the left leg and then bring it back to start. Repeat this motion as quickly as possible while maintaining proper spinal alignment for the desired amount of reps or time.
<b>Variations</b>	Have front foot contact the ground adding more friction and a more challenging workout. Move legs in a Lateral motion. Place hands on rail to incline the body. Place hands on an unstable object. Cross the body with the knee so that the right knee aims toward the left elbow and left knee to the right elbow



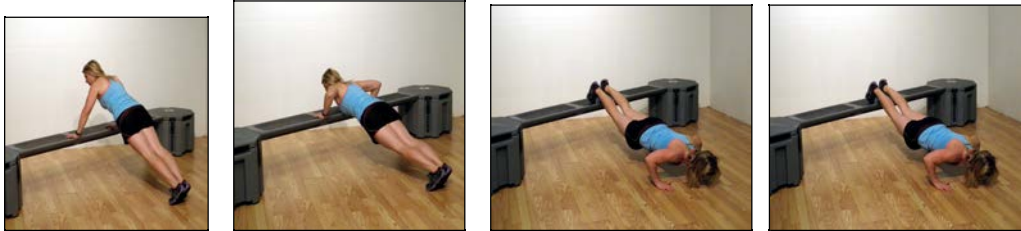
<b>Exercise</b>	<b>One-Arm Side Bridge</b>
<b>Purpose</b>	A very good core and shoulder exercise due to the demand of the asymmetrical load put on the body.
<b>Involved Muscles</b>	Core (primarily oblique's), Shoulder abductors, adductors and Scapular stabilizers of supporting arm; Hip abductors and adductors in isometric contraction
<b>Action</b>	Position the body as if you were going to do a pushup with both hands on the beam and feet on the floor. Once you have the desired pushup plank position, rotate the body so the side of the body faces the ceiling and you are balanced with on one hand on the rail and the other hand extended above the body toward the ceiling. One foot shifts to the front of the other foot and the feet are tilted onto the edges of the shoes. Hold for 30 seconds. Repeat on other side.
<b>Variations</b>	Place hand on rail; balance on 1 leg while other leg is elevated; bend arm so you are supported on your elbow.



<b>Exercise</b>	<b>Pull-Ups</b>
<b>Purpose</b>	Pull-ups and chin-ups are some of the most beneficial exercises for any age. Pulling one's bodyweight through space builds upper body strength.
<b>Involved Muscles</b>	Shoulder extensors, Elbow flexors; Forearm flexors and extensors are both engaged to stabilize wrists; Finger flexors: Core
<b>Action</b>	Lie under the Railyard, perpendicular to the rail. With hands on the rail, shoulder width apart pull your body upward towards the rail, then lower in a controlled manner. Repeat.
<b>Variations</b>	Body position can be inline with the rail and hands on either side. Use a mixed hand grip; lift one leg off the ground.



<b>Exercise</b>	<b>Push-Ups (Incline/Decline)</b>
<b>Purpose</b>	A staple of any bodyweight exercise routine to strengthen upper body, core and legs.
<b>Involved Muscles</b>	Shoulder extensors, horizontal adductors; Elbow extensors; Core; Hip extensors in isometric contraction
<b>Action</b>	Start in a prone plank position. Hand placement can vary from directly under shoulders to about 6" to the outside of the shoulders. Maintain tight abdominals and lower body towards ground. At 90 degrees or more (depending on goal) redirect and push body away from ground.
<b>Variations</b>	Can be done on an incline or decline by placing the feet or hands on the rail; perform with an unstable object under either feet or hands; change hand positions; use a mixed grip; add speed to movements; add variety to heights of each hand. Can be performed on knees (modified) or against a wall. Move laterally across the Railyard with each push up.

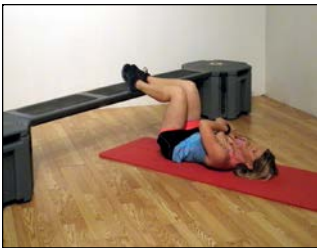


<b>Exercise</b>	<b>Superman</b>
<b>Purpose</b>	A low intensity posterior chain exercise that will help counteract the negative effects of gravity on posture. Primarily used to improve thoracic mobility and strength.
<b>Involved Muscles</b>	Shoulder, Hip and Knee flexion and extension; Core; Scapular stabilizers
<b>Action</b>	Lie flat on your belly. Stretch your arms out in front of you with thumbs up. Extend your back by pulling your shoulder blades together and lifting torso off floor. Only extend until you feel a slight squeeze in your lower back muscle. Lower yourself so your chest touches the floor.
<b>Variations</b>	Alternate arms; add slight twist motion at top. Can be done on hands and knees with a single arm raise or by raising and lowering opposite arm and leg.

<b>Exercise</b>	<b>Supine Back Bend Bridge</b>
<b>Purpose</b>	Used to stretch the chest, neck, and spine. It has also been shown to calm the brain and helps alleviate stress.
<b>Involved Muscles</b>	Spinal and Hip extensors; Core; Slight Knee extension, with mostly isometric contraction of Quads/Hamstrings; Scapular and Shoulder isometric engagement to stabilize upper body
<b>Action</b>	Lie on the back with the knees bent .Place the hands in an inverted palms-down position on the ground (fingers will be pointed toward the feet). Pushing up from the hands and feet, lift the hips as high as possible up into a bridge.
<b>Variations</b>	Modified by elevating hands onto the Railyard.

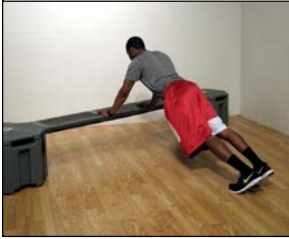


<b>Exercise</b>	<b>Supine Hip Bridge</b>
<b>Purpose</b>	Strengthen and train the posterior chain.
<b>Involved Muscles</b>	Hip and Spine extensors; Scapular and Shoulder isometric engagement to stabilize upper body
<b>Action</b>	While lying supine on floor, place feet on rail, and keep palms facing up. Slowly raise hips off ground by squeezing the glutes and hamstrings. Return to start position.
<b>Variations</b>	Use a Single leg Alternating legs Legs bent Lay across rail



<b>Exercise</b>	<b>Two Arm Prone Bridge (Plank)</b>
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<b>Purpose</b>	A full body strength exercise that emphasizes core stability and endurance.
<b>Involved Muscles</b>	Core; Shoulder and Elbow muscles isometrically engaged; Scapular stabilizers; Hip extensors in isometric contraction
<b>Action</b>	Start by facing the rail with feet and shoulders hips width apart. Place both hands on the rail in a push up position. Keeping the hands under the shoulders and elbows extended, hold this position for 30 seconds to one minute.
<b>Variations</b>	Feet on the rail. Raise one leg or alternating legs Lower yourself down to your forearms with minimal movement in the hips then; bring yourself back up by extending elbows.



## Chapter Five

## Putting It All Together

### Ground-Based Obstacle Course Fitness Sample Classes

**Set up:** Have a designated space between 30 - 50 feet. This could be a basketball court, outdoor area, group exercise room, etc. Have definitive start and stop points set out by cones or lines. Designate 10 straight lines—going up and coming back. Have no more than two to three participants in each line, to minimize waiting. If space permits, all participants will go at the same time. Each person in line does the first exercise. If there are two or three participants in a line, they keep about 5 feet apart and follow each other. Some of the exercises will move—going up and coming back. Some of the exercises will be done together as a group.

### Sample Class #1

**Warm up:** 10 -12 minutes

- Joint mobilization - start with ankles, knees, hips, spine, shoulders, elbows, wrists, neck
- Squat Variations:
  1. Body Weight Squats Hip Width Stance - X 8
  2. Wide Stance - X 8
  3. Narrow Stance - X 8
  4. Hip Openers - X 8 each side
- Push Up Variations:
  1. Regular Hand Width - X 8
  2. Wide Hands - X 8
  3. Staggered Hands:
    1. Right High/Left Low - X 8
    2. Left High Right Low - X 8
- Jog Forward
- Back Peddle to start
- Side Shuffle Right/Left

**Workout:** 30 - 40 minutes

Walking Lunge with Forward Reach Down  
Knee Up Run - going up and coming back  
Jumping Jacks X 30  
Inch Worms Down  
Crab Walk Back  
Hip Lifts X 30  
Lateral Traveling Lunge with Right Rotation Down  
Lateral Traveling Lunge with Left Rotation Back  
Side Plank Right 30 seconds  
Side Plank Left 30 seconds  
Plank 30 seconds  
Glute Bridge X 30

**Repeat sequence 2 - 3 rounds with 90 - 120 seconds rest between rounds**

**Cool Down: 5 minutes**

- Downward Dog
- Cobra
- Kneeling Hip Flexor Stretch

## **Sample Class #2**

**Warm up: 10 -12 minutes**

- Joint Mobilization: start with Neck Rolls, Flexion/Extension at Shoulders, Internal/External Rotation at Shoulders with a Bent Elbow, Wrist Rolls, Spinal Twists, Hip Circles Clockwise/Counter Clockwise, Knee Circles Clockwise/Counter Clockwise, Ankle Circles Right/Left
- Traveling Side Squats 8 Right/ 8 Left
- Squat Shuttle Run down and back
- Offset Squat
  1. Right Foot High X 8
  2. Left Foot High X 8
- High Knees Down
- Butt Kickers Back

**Workout: 30 - 40 minutes**

Walking Lunges with Rotation to Lead Leg Down  
Carioca Back Right Leg Lead  
Bear Crawl Down  
Carioca Back Left Leg Lead  
Prisoner Squat with Rotations Down  
Stork Walk Back  
Spiderman Crawl Down  
Backward Bear Crawl Back  
Scissor Jacks X 30  
Rotating Side Planks X 15 Each Side  
Hip Hike With Alternating Leg Raise X 30

**Repeat sequence 2 - 3 times with 90 - 120 second rest in between**

**Cool Down: 5 minutes**

- Child Pose
- Hanging Posterior Chain Stretch
- Standing Hip Flexor Stretch

## **Sample Class #3 – With Equipment**



**Set up:** Have a designated space between 30 - 50 feet. This could be a basketball court, outdoor area, group exercise room, etc. Have definitive start and stop points set out by cones or lines. Designate 10 straight lines—going up and coming back. Have no more than two to three participants in each line, to minimize waiting. If space permits, all participants will go at the same time. Each person in line does the first exercise. If there are two or three participants in a line, they keep about 5 feet apart and follow each other. Some of the exercises will move—going up and coming back. Some of the exercises will be done together as a group.

**Equipment:** Medium Weight Medicine Balls, Stability Balls, Jump Ropes, Resistance Bands

**Warm up:** 10 minutes

- Walk forward and backward
- Side Step right and left
- Jog forward and backward
- Side Shuffle right and left
- Jumping Jacks
- Shallow Squats
- Side/Side Lunges
- Standing Scapular Contractions
- Standing Shoulder Circles
- Torso Twister
- Head Circles right and left
- Heel Walks and Toe Walks

**Workout:** 30 - 40 minutes

Jump Rope Revolutions X 30  
Walking Lunge with MB Rotations Down  
Medicine Ball Slam Downs X 15  
Walking Lunge W/ MB Slams to Lead Leg Back  
Carioca Down  
Scissor Jacks X 30  
Carioca Back  
Band Side Step Right Leg Lead Down  
Band Row X 15  
Band Side Step Back Left Leg Lead Back  
Stability Ball Crunches X 15  
Stability Ball Mountain Climbers X 15 Each Leg  
High Knees Down  
Jump Squats X 15  
Buttkickers Back X15  
Stability Ball Hip Lifts X 30  
Stability Ball Superman's X 15 Each Side

**Repeat sequence 2 - 3 rounds with 2 - 3 minutes rest in between**

**Cool Down:** 5 minutes

- Cat/Camels
- Lat Stretch
- Kneeling Hip Flexor Stretch
- Kneeling Hamstring Stretch
- Chest Stretch with Bent Elbow

## **Sample Class #4 – With Equipment**

**Equipment:** Jump Ropes, Cones, Medicine Balls, Stability Balls, Resistance Bands

**Warm up:** 10 minutes

- Arm Swings Flexion/Extension
- Bear Hugs
- Leg Swings Flexion/Extension
- Jog Down
- Shuttle Back Right Lead
- Jog Down
- Shuttle Back Left Lead
- Walking Lunge With Lead Leg Rotation Down
- Reverse Lunge With Overhead Reach Back
- Windmills

**Workout:** 30 - 40 minutes

Jump Rope Down and Back  
Army Crawl Down  
Stability Ball Hamstring Curl X 20  
Crab Walk Back  
Side MB Slam Downs X 20 Each Side  
Lateral Lunge Down With Left Leg Drag/MB Twist  
Stability Ball Ab Crunches X 20  
Lateral Lunge Back With Right Leg Drag/MB Twist  
Resistance Band Push Up X 20  
Plank Rotations X 20 Each Side  
Stork Walk with MB Overhead Hold Down  
MB Wall Toss X 20  
Stork Walk With MB Front Hold Back Cone  
Zig-Zag Shuttle Run Down  
Jump Squats X 20  
Cone Zig-Zag Shuttle Run Back

**Repeat Sequence 2 - 3 times with 2 - 3 minute rest in between**

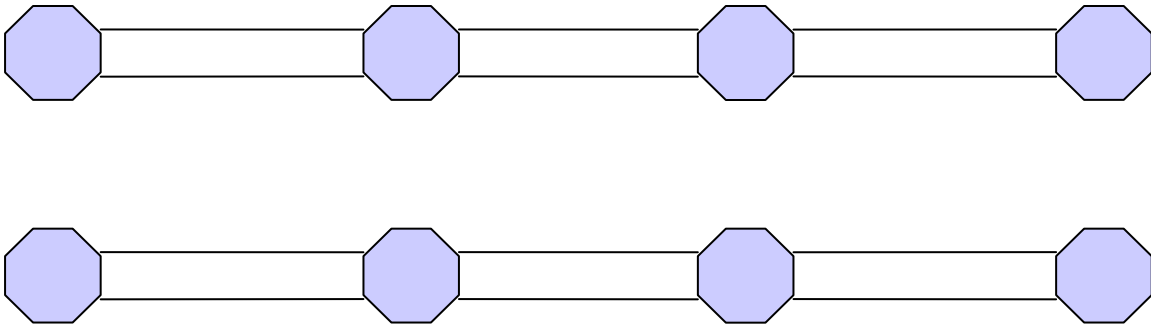
**Cool Down:**

- Opposite Arm/Leg Raise X 10 Each Side
- Childs Pose
- Cobra
- Downward Dog
- Hanging Hamstring Stretch
- Chest Stretch

## **Railyard Fitness Course Sample Classes**

The Railyard Fitness Course can be configured in several ways, depending on the number of rails and platforms you have, and the area where the course is being set. It is more interesting to your class to offer variety by changing the configuration from time to time. Make sure that the course is set up on a stable surface with the lids locked in place before participants begin. Give ample time and space for participants to finish each exercise. Exercises are performed on the ground unless marked by an \*. If more rails are used, each station may be longer or you made add additional stations into workout.

**RAILYARD FITNESS COURSE STRAIGHT LINE CONFIGURATION 4**  
**Platforms with 3 Rails**



## **Railyard Functional Class #5**

**Set up:** Obstacle Course arranged in two straight line configurations with rails flat side up or curved side up depending on class level. Four platforms with three rails linked between them or three platforms with two rails linked between them depending on class size.

**Warm up:** 10 minutes

- Jog Down and Back
- Side Step Right Down
- Side Step Left Back
- Bear Crawls Down
- Backward Bear Crawls Back
- Side Shuffle Down
- Side Shuffle Back
- Balance Hops Right to Left Foot
- Balance Hops Left to Right Foot
- Hip Opener Squats

**Workout:** 30 - 40 minutes

Frog Hops Down  
Squats X 20  
\*Walking Lunge across Railyard Back  
Plank Rotations X 20  
Inch Worm to Push Up Down  
Curtsey Lunge X 20  
\*Stork Walk across Railyard Back Glute  
Bridge X 20  
Crab Walk Down  
Ab Crunch X 20  
Jog to Start

**Repeat sequence 2 - 3 times giving 2 - 3 minutes rest in between**

**Cool Down:** 5 minutes

- Supine Groin Stretch with one leg over the Railyard Fitness Course rail. Repeat on other leg. Hold 60 seconds per leg.
- Hamstring Stretch with 1 leg on the Railyard Course, repeat other leg. Hold 60 seconds per leg.
- Overhead Triceps stretch - 60 second hold per side.
- Across the body rear deltoid stretch - 60 second hold per side.

## **Railyard Functional Class #6**

**Set up:** Obstacle Course arranged in two straight line configurations with first rails flat side up and second rail curved side up. Four platforms with three rails linked between them or three platforms with two rails linked between them per course depending on class size.

**Warm up:** 10 minutes

- Stork Walk forward and backward
- Side Step right and left
- Bear Crawls
- Side Shuffles right and left
- Standing Windmill
- Foot Circles/Point/Flex
- Arm Swings Flex/Ext
- Opposite Arm/Leg Raise
- Cats and Dogs
- Jog Perimeter

**Workout:** 30 -40 minutes

Hops in Place X 30  
Traveling Push Ups Switching Lead Arm 1/2 way Down  
Hip Lifts X 30  
\*Lateral Traveling Squats on Railyard Back  
Mountain Climbers X 30  
Spiderman Crawl Down  
Alternating Lunges X 30  
Rotational Prisoner Squats Back  
\*Over Drill or Modified Over Drill on Railyard Down  
Side Plank 30 Second Hold per Side  
Army Crawl Back  
Plank Hold 30 seconds  
Jog back to start

**Repeat sequence 2 -3 times with 2 - 3 minute rest in between**

**Cool Down:** 5 minutes

- Kneeling Hip Flexor Stretch 30 second hold per side
- Kneeling Hamstring Stretch 30 second hold per side
- Childs Pose 60 second hold
- Cobra Pose 60 second hold
- Hanging Posterior Chain Stretch 60 second hold
- Standing Chest Stretch 60 second hold

## **Railyard Functional Class with Equipment #7**

**Equipment Needed:** Speed Ladder, Medicine Balls, Resistance Bands, Cones, Hurdles

**NOTE Set up:** Obstacle Course arranged in two 'U' configurations with one having rails flat side up and the other curved side up. Three rails per 'U' and four platforms.

**Execution:** Each exercise is set up as a station with a maximum number of 2 participants at each station. There are 12 total stations to get through. Each station is timed at 40 seconds with a 20 second transition to the next station. All participants do the warm up and cool down together as a group and then break off into the workout stations transitioning through to the next numbered station in sequence. If the participant starts at station 12, they move to station 1 next and continue through until they finish with all 12 stations.

**Warm up:** On the ground for 10 minutes

- Stork Walk forward and backward
- Side Squat right and left
- Bear Crawls
- Off set Squats with Right Foot High/Left Foot High
- Standing Windmill
- Hip Lifts
- Foot Circles/Point/Flex
- Rotating Planks
- Cats and Dogs
- Spiderman's

**Workout:** 30 - 40 minutes

Front Hurdle Hop Overs

Band Side Steps 10 Right/10 Left

Medicine Ball Front Toss Down

\*Railyard Traveling Side Step Over's (Forward & Backward)

\*Railyard Traveling Quick Over's (Forward & Backward)

\*Railyard Traveling Dips (To the Right - Left)

Speed Ladder In-In-Out-Out Quick Feet

Resistance Band Rows

\*Railyard Bear Crawls (Forward & Backward)

\*Railyard Traveling Incline Push Ups (Right - Left Travel)

\*Railyard Traveling Front Step Ups (Right Leg Crossover Down/Left

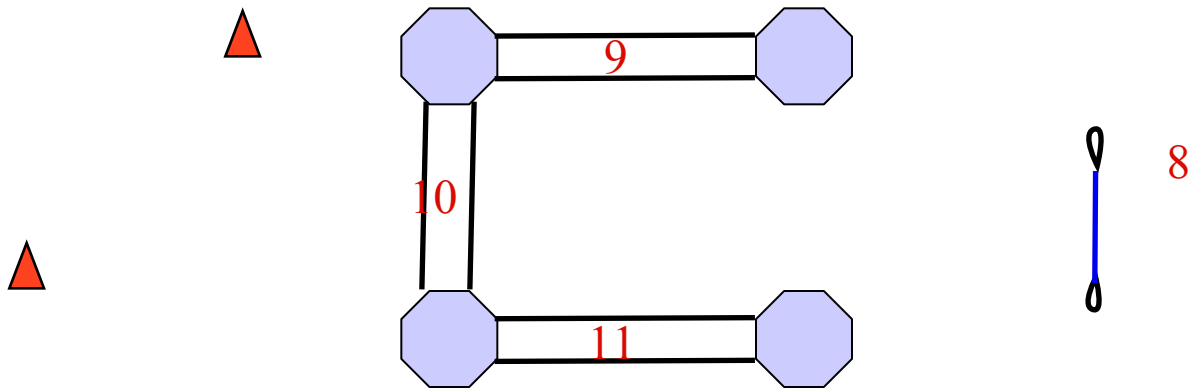
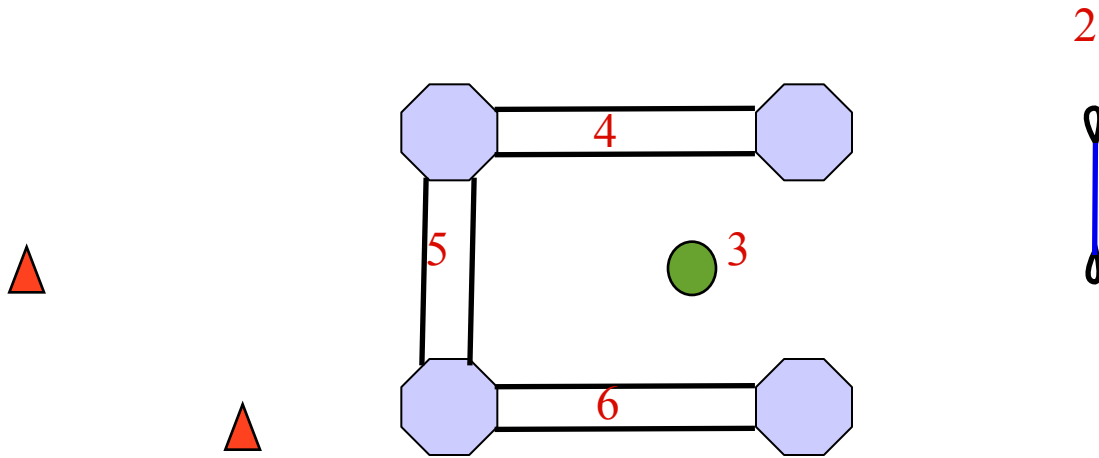
Crossover Back)

Cone Shuttle Run

**Repeat sequence 2 - 3 times with 2 - 3 minute rest in between**

**Cool Down:** 5 minute

- Standing Runners Stretch, 60 second hold per leg
- Standing Hamstring Stretch with 1 Leg on Rail, 60 Second hold per side
- Standing Chest Stretch 60 Second Hold



12  **Obstacle Course Fitness in a Health Club Setting**

Since the introduction of the Railyard Fitness Course, Obstacle Course Fitness has



become popular as an indoor group exercise class, and personal training tool. Obstacle Course Fitness can be offered as a complete stand-alone class, or integrated into a boot camp or functional fitness type of class.

For many club members, obstacle course fitness and the Railyard Fitness Course might be a very different experience. Before offering a new stand-alone Obstacle Course class, it may be a good idea to start by introducing some of the activities into other classes as a way of allowing members to grow accustomed to the different concepts and moves. When introducing the Railyard Fitness Course into your club, scheduling some demo time is a good way to generate interest. Have an instructor available to show members some of the movements and activities and let them give it a try. Before you know it, Obstacle Course Fitness is bound to become one of your most popular classes because of the great all-round workout it provides.

Obstacle Course Fitness and the Railyard Fitness Course are excellent tools for community outreach programs such as health fairs or street fairs. Why hand someone a flyer about your club when you can actually have them participate in a fitness activity that makes them smile or even laugh? Obstacle Course Fitness puts the fun back in fitness and encourages participation for people of all ages.