



Indoor Cycle Instructor PROfile **Mountain Rider**

MOUNTAIN RIDER

Created by **Jim Karanas, Team ICG® Master Trainer, Indoorcycling Group® in partnership with LIVESTRONG® Fitness by Matrix**

Training Type: **Intermediate**

Working HR Zones: **Zone 3-4**

Class Length: **55 minutes**

PROFILE DESCRIPTION

Indoor cycling came from road riding and has retained that identity in most teaching systems. The ride positions, the hand positions, the cues and the philosophy follow the “roadie” way of riding. Yet, according to the U.S. Commerce Department, mountain bikes have outsold road bikes for the last 20 years. So most people ride mountain bikes. But most instructors never take this into account.

Adding to the challenge, off-road technique is sometimes contrary to what we would do on a road bike, so the translation of off-road technique to indoor classes might be too confusing at times.

However, if the idea of an indoor cycling class is to create an experience, what could be more fun than to take our students on a trail occasionally, as opposed to a road? Fire trails, single track, sand, snow, grass, dirt – suggesting these terrains and trail surfaces can add depth, color, even poetry to your classes. It just takes the willingness to do something different.

If you are a straight-up indoor-cycling instructor, and/or a roadie, you are likely never going to attempt to teach a Mountain Rider class. However, if you enjoy the trail as much, or even more than, the road, then I hope these ideas will help you bring the trail to your students.

I recently offered Mountain Rider for the first time in North America at Can Fit Pro in Toronto. I was amazed at how many instructors attended class because (a) they ride off-road, and (b) they wanted the experience of riding off-road. Some were roadies who were actually concerned about their lack of off-road skills – as if I was going to ask them to bunny-hop a log.

Some basic class suggestions will set the stage:

1. Tell your class participants that, for today, they must forget much of what you’ve previously taught them about indoor cycling.
2. Mountain biking does work with energy zones, power, intervals and threshold, but pure, senseless fun needs to be a major part of the class design.
3. Simulation begins with education. Teach them about the trail. Are we on a fire trail or single track? What’s the surface? What are the conditions? In mountain biking, the trail surface and conditions change the experience completely. This needs to be part of your cueing.
4. Introduce and use off-road terminology: fire roads, single track, rollers, washboards, high-side/low-side.

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To begin teaching a class like Mountain Rider, you must move from the current approach of providing a workout to one of having a great time riding the bike. Road riding can be fun but is generally much more serious: grounded in science, training, getting it right in general. Mountain biking is hardly EVER serious. "Feeling alive" on your bike? There's nothing like off-road.

You'll want to keep in mind that some standard indoor cycling exercises don't translate to off-road. You almost never jump, nor do you stand on most climbs. Your bike set-up and gearing are very different from how they are on a road bike. Adhering to off-road principles is what will make the class different. The ICG® certification offers off-road movements called Wave Riding and Speed Bumps. I will describe them later in the profile.

OBJECTIVE

The objective of this profile is to introduce the student to the basics of mountain biking on a stationary bike. Because of the fixed position of the bike, the main component of off-road riding – maintaining traction (and staying confident when you lose it) – must be implied by suggestion.

No computer is necessary for this class, and I recommend using both Freestyle and Beatmatch with regard to musical structure. A HRM is okay if they want to make sure they are in their desired training zone.

I recommend providing this profile as an Intermediate Mixed Terrain class, using 10 songs to represent 10 different aspects of off-road riding.

Have your students set their handlebars higher than normal to simulate the more upright riding position of a mountain bike. No other adjustments are needed. And remember, mountain biking was born in the '70s. Hitting the trail with loosened inhibitions affirmed our spirit of adventure. That needs to be emphasized in your class.

THE PROFILE

LOOSEN UP

Length: 7:12
Intensity: 2-3 RPE
Cadence: 60-100 RPM

Track 1 – Ghost Dancer by Slovak Chamber Orchestra (Native Spirit) 7:12

The warm-up is not aggressive. Native Spirit by Slovak Chamber Orchestra is a departure from their traditional classical recordings. The music, particularly Ghost Dancer, offers a haunting Native American melody that sets the tone as you lead the class through a series of rolling hills on the hard-packed red dirt of the White Rim Trail in southern Utah. Utah is one of the greatest mountain biking playgrounds in the world.

I want you to imagine we are on a fire road in Southern Utah. A fire road is a trail wide enough for a 4-wheel vehicle. The trail is hard-packed but dusted with the red dirt typical of Utah. It's red because of iron oxide. Traction is not bad, but there is some slipping and sliding. We're riding on the White Rim Trail, a 103-mile fire road in Canyonlands National Park near Moab. The first thing I want you learn about riding off-road is to loosen up. A roadie can afford to be stiff, but I want you to let your body move a bit more. However, keep a firm grip on your handlebars. Keep your hands wide and grip

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the handlebars with the same pressure as a friendly handshake. Thumbs underneath.

As we go up and down these rollers, I want you to stay seated for the climbs and stand for the descents. When we're climbing, stay in the saddle, bend forward from the hips and distribute your weight evenly. When we descend, rise slightly off the saddle so your legs can give you a bit of cushion and continue pedaling. For right now, keep your weight centered. Later we'll move our weight back when the descents are steeper.

Take them up and down over easy rollers. Spin on the climbs at about 90-100 rpm. Add resistance and walk/jog on the descents at 60-70 rpm. Improvise the cadence and timing in relation to virtual terrain in your mind. The music is ambient, with no downbeat to work with, so use a Freestyle musical interpretation. Ghost Dancer and your cues will set the tone. Have them raise their heart rates gently. The cues about where they're riding (White Rim Trail) are called Simulation Cues, and they give the rider a reference point. I think you'll find them very helpful when cueing a Mountain Rider class for the first time and creating an off-road experience.

PAY ATTENTION TO TRACTION

Length: 10:36
Intensity: 3-6 RPE
Cadence: 70-90 RPM

Track 2 – Mojave by Afro Celt Sound System (Anatomic) 10:36

On the road, traction isn't a big issue. But on dirt, your tires will skid. The ground moves under your wheels – impossible to feel on a stationary bike, so you must describe the feeling to create the illusion. This song is a 10-minute climb, during which you'll ramp your heart rate up to a level where you feel a training effect taking place. Again, don't make this too much about numbers. The surface is gravel, so you'll have to remain seated for the entire 10 minutes (as you would on a mountain bike).

The hill begins gradually for about 3:30. Increase the resistance but continue to spin at 80+ rpm, keeping the weight back on the saddle. Use Freestyle with the music. When the beat kicks in, have the students sit back, stay centered on the saddle, increase the resistance, and pedal at 70 rpm. Use Beatmatch. Increase their intensity. At 9:00, have the students drop the resistance slightly, slide forward on their saddles, lean forward more, and spin at 90 rpm to the finish. Stay ahead of the music. Peak the heart rate.

We're in for a monster climb on gravel. Select the right gear. You need to plan ahead for this. Keep your pedaling at about 80 rpm. Not too much effort yet. Scoot back on the seat to start; however, this hill becomes very steep (0:00-3:30). We're still in Utah on Highway 261, called the Trail of the Ancients. We're climbing an all-gravel section of switchbacks called the Moki Dugway. Move your weight to the middle of the bike (3:30-9:00). If you lean too far back, your front wheel may pop up. If you lean too far forward, you'll lose traction. Drop your heels on each pedal stroke and concentrate on a smooth spin. Jerky pedaling can cause the rear wheel to break contact with the ground.

Stay seated. There isn't enough grip to stand up. (9:00-10:36) The hill has just hit 10%. Drop your resistance slightly to simulate your granny gear. Bring the cadence up and pedal at 90 rpm. This should feel harder, not easier.

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Now, move forward slightly on the saddle and lean forward. Your elbows will angle out a bit. Slide your hands to the curved ends of the handlebars to simulate bar ends. They'll give you added leverage and help you keep weight over the front wheel. Keep your head up.

How far forward you have to lean is determined by the angle of the slope and the traction available on the trail. The looser the dirt and the steeper the trail, the closer to parallel your torso will be to your top tube.

PEDAL THROUGH

Length: 4:50
Intensity: 8-9 RPE
Cadence: 105 RPM

Track 3 – Black Horse and the Cherry Tree by KT Tunstall (Live In LA) 4:50

Sand, loose dirt or dust is a mountain biker's worst nightmare. Your momentum plummets to nothing, your wheel slips out – and then you're walking.

Mountain bikers must learn the concept of “pedaling through.” Which means that no matter how hard it is to keep pedaling, your traction is so bad that if you break your pedaling momentum, you'll come to a stop. This is most true on sand or very dusty trails.

Sit firmly on your seat to keep weight on your back tire so it doesn't slip out. Crouch a little more drastically and keep a firm grip on your handlebars to keep your front wheel from wobbling back and forth. Keep your eyes ahead and focus on a tight, straight line.

Use a low granny gear and continue pedaling at a steady pace. Don't break your pedaling momentum or you're liable to sink and come to a stop. Keep your eyes focused on the end of the sand, if possible, and just grind it out.

We're going to ride our first “single track” to this song. Single track is a narrow mountain biking trail that is approximately the width of the bike.

We're in the Badlands of South Dakota, riding the well-known Castle Trail. Erosion occurs at a very fast rate in the Badlands, so the ground is highly unstable. The formations look rock solid but are in fact loose compositions of soil, clay and ash. Riding Castle Trail is almost like riding on sand.

The biggest key to riding in sand is to not sink and lose your speed. This is known as “pedaling through.” Keep your front wheel light. Lean back a little and keep your front wheel gliding over the sand. If your front wheel sinks in too much, you'll stop. Hit the sand with a gear that you might use for a hard climb and churn your legs for all you are worth until you get out. Pedal at about 105 rpm with as much resistance as you can. Remember always to PEDAL THROUGH.

Your cues about where you are riding are important for the simulation. The concept of “pedaling through” reminds everyone of what it was like to first ride his or her bike at the beach. Keep the cadence high. The effort should be near max.

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PERFECT YOUR PEDALING

Length: 3:47
Intensity: 5-6 RPE
Cadence: 80 RPM

Track 4 – Going To California (Music Only) by Tribute Band Karaoke (Tribute Band Karaoke: Led Zeppelin – Volume 1, Music Only) 3:47

Mountain Bikers tend to be mashers. As in road riding, improving your pedaling technique means delivering energy through as much of the pedal stroke as possible. This raises your speed, increases traction, uses less energy and improves your balance.

Most mountain bike riders seem to have a natural flat-ground cadence of around 80 rpm. After the intensity of learning to “pedal through,” allow everyone to recover and just work on his or her pedaling technique.

This song selection is a must for a Mountain Rider class as mountain biking was born in Marin and Mendocino Counties, north of San Francisco.

Take a break from the saddle and then settle down for some flat, easy pedaling. We’re going to ride on the Lost Coast Highway, about 200 miles north of San Francisco, California. This is the birthplace of mountain biking. We are on hard-packed dirt with some gravel. Our traction is pretty good.

Use Beatmatch and let the music help you set a cadence of about 80 rpm. Ride for 4 minutes, using a gear that gives you moderate pedaling resistance so you can work on turning smooth circles. We’re going to focus on one leg at a time. Start with the R leg. Push down. Before the pedal reaches the bottom pull back as if you are trying to scrape something off the bottom of your shoe. Pull up. Just before the pedal reaches the top, start pushing it forward. Do this for about a minute, and then we’ll switch sides.

Let’s repeat using the L side.

Now that we’ve done each side for a minute, I want to focus on “expanding the pedal stroke.” Keep turning the pedals at 80 rpm but feel as if you are “stretching” the circle around its entire circumference. You should feel as if you are trying to make the circle as BIG as possible.

These are just some examples of techniques I use to improve pedaling skills. Any other techniques you’d like to use are appropriate. Even though the ground doesn’t have traction like the road, mountain bikers still work on perfecting their pedaling.

TECHNICAL CLIMBS

Length: 4:18
Intensity: 8-9 RPE
Cadence: 60-90 RPM

Track 5 – New Orleans is Sinking by The Tragically Hip (Yer Favourites) 4:18

Climbing is far more technical on a mountain bike than on a road bike because of steep gradients,

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lack of traction, and objects on the trail. Exploring the differences will be the focus of this next track.

When things get steep and loose and obstacles appear on the trail, a mountain biker's technique needs to be nearly perfect. It's not simply a matter of strength or better gearing. Losing traction, accidental wheelies, and not holding a line are all common causes of riders not making it to the top of technical ascents. *Proper body position* is more important on the trail than on the road. Your weight shift (fore and aft on the saddle), and lowering your upper body are both mandatory in ascending steep, nasty climbs.

On steep, technical ascents, mountain bikers need to shift their weight forward. Moving forward helps you maintain your "power position" and also puts more weight on the front of the bike to prevent accidental wheelies or the front wheel wandering uncontrollably all over the trail.

Also, off road, you need to get your chest down. On a steep grade, your chin is literally only a few inches from the stem. The upper body CANNOT rise as the front of the bike rises, or you will fall off the back of the bike.

You also need to accelerate as much as possible in order to have momentum to help you get over steep sections or obstacles. An even lower position of the upper body is needed during the acceleration to maintain fore and aft balance.

If you do stand, you will often un-weight the rear tire and spin out. It's possible to stand, but you lift your butt only a couple of inches, maximum, off the saddle and then return to the saddle as quickly as possible. It's still mandatory to maintain the forward low-body position. You can't raise the body as you can on a road bike.

Last, pulling on the handlebars with each pedal stroke comes from road cyclists. This is not done on the trail. Road riders don't have the problem of doing wheelies on climbs because of the construction of the road bike and because the climbs simply aren't very steep compared to MTB trails.

How do you make this work for Indoor Cycling? Obviously, this is a radical departure from basic climbing technique taught in all education systems. That is why it's important to tell your students at the beginning of class that you'll be doing some things very differently to give them a new experience. It's important to share the above information during the track so they understand why.

Climbing is far more technical on a mountain bike than on a road bike because the gradients are steeper, there's no traction, and there are objects on the trail. We're going to go over some of the technique differences as we climb Mt. Baldy in Los Angeles County. Also known as Mount San Antonio, it's the highest peak in the San Gabriel mountains (10,068').

Add plenty of resistance and begin pedaling in time with the music – about 60 rpm.

Proper body position is more important on the trail than on the road. Your weight shift (fore and aft on the saddle), and lowering your upper body are both mandatory in ascending steep, nasty climbs.

Now, reduce the resistance slightly and pedal faster than the music. This simulates dropping to your granny gear and the beginning of the difficult part of the climb. Shift your weight forward, move your hands apart to the curved section of the handlebars, and bring your body down. If you imagine that

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the front wheel is about to lift off the ground, you'll assume the correct position.

Now let's drop the body angle farther and accelerate to roll over the rocks that are up ahead.

The body position necessary for steep climbs on a mountain bike will be unusual for your students. Have them hold it for only a short time and then revert to their standard seated climb position. Make sure to emphasize that the position is necessary because of steepness of grade, loss of traction, and objects on the trail.

WAVE RIDING

Length: 4:41
Intensity: 6-7 RPE
Cadence: 75 RPM

Track 6 – Revolve (R Mix) by His Boy Elroy (Reconstructed/Mixed) 4:41

Descending on a mountain bike is very different from descending on a road bike. First, you stand most of the time. Keeping your weight on your feet is the only way to keep your body centered and balanced on the bike. Second, you shift your weight back. As your front wheel drops, you let the bike ride out in front of your body. You extend your arms slightly as you push the handlebars away from you.

Wave Riding is an advanced riding position used by Team ICG® instructors and shown in Stage 2 of our Stages certification. A video of the movement can be found on the following link:
<http://education.ic-pro.org/pages/31#wave>

NOTE: To access these videos please create a FREE account at <http://www.ic-pro.org/en> Then, once you are logged in, you can click the link to view the video.

Wave Riding is performed in the standing climb position with the principle of transferring body weight *back* from the center of the saddle and then forward to the normal standing climb position.

We've been doing a lot of climbing, and now it's time to go downhill. Descending on a mountain bike is very different from descending on a road bike, as you'll find out. There is a beautiful single track in the Swiss Alps that descends from Furka Pass. The trail is dirt and grass and gently undulates downward.

First, we'll stand for this entire descent. Keep pedaling at about 75 rpm and use the Standing Climb position. Keeping your weight on your feet is the only way to keep your body centered and balanced on the bike as the terrain changes underneath you.

Second, shift your weight back a few inches on my cue. This is called Wave Riding. As your front wheel drops, you let the bike ride out in front of your body. You extend your arms slightly as you push the handlebars away from you.

Here we go, move your hips back to get used to the riding position. Great. Now bring your hips back to their normal position for a standing climb.

Now we're going to do it with a rhythm. Ready? Hips back for 8 turns of the pedals. Now bring the hips forward for 8 turns.

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The position is not as aggressive as a true downhill mountain biking position, but will give the students the sense of the fore/aft, standing technique that is used in off-road descending.

ROCKING TREAD

Length: 4:37
Intensity: 6-7 RPE
Cadence: 65 RPM

Track 7 – Take Care (featuring Rihanna) by Drake (Take Care) 4:37

When riding off road, you spend most of the climbing time in the seated position. However, on short grades with a firm surface, you can generate a lot more leverage by standing (same as on a road bike). The side-to-side swinging of the bike that accompanies standing increases the body weight through each pedal stroke. We call this Rocking Tread.

Just as with road bikes, when you leave the saddle, you may find it necessary to shift to a higher gear (add resistance) because of the increase in power. Keep your rpm as consistent as possible. Remember to time your power stroke so that the primary driving force is from 12 to 5 o'clock.

Rocking Tread is an advanced riding position used by Team ICG® instructors and shown in Stage 2 of our Stages certification. A video of the movement can be found on the following link:

<http://education.ic-pro.org/pages/31#rocking>

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Then, once you are logged in, you can click the link to view the video.

There's a beautiful gravel/pavement mountain bike route in Italy known as the Sentiero Ponale. Thousands of mountain bikers come each year to ride this amazing trail that overlooks the Lago di Garda, the largest, deepest lake in Italy.

Start in the saddle and let the music help you find your cadence, about 65 rpm. We're going to Beatmatch for the entire song and keep our cadence the same in and out of the saddle.

This trail is mostly gravel, but every now and then, there's a concrete patch that will allow us to stand and do some power intervals. With the traction of concrete, we'll use the standard Standing Climb position but rock our bikes side-to-side as we power through the down stroke.

At your discretion, add 20-30 second standing power intervals, using Rocking Tread.

SPEED BUMPS

Length: 4:55
Intensity: 6-7 RPE
Cadence: 55 RPM

Track 8 – Clubbed to Death by Escala (Escala) 4:55

Speed Bumps are based on the Wave Riding movement, but with a slightly smaller range of motion

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and quicker repetition. They're performed in an 8-count rhythm:

- 1 move body weight to the rear of the saddle
- 2 bring body weight back to center
- 3,4,5,6,7,8 hold a Standing Climb position

Speed Bumps are an advanced riding position used by Team ICG® instructors and shown in Stage 2 of our Stages certification. A video of the movement can be found on the following link:

<http://education.ic-pro.org/pages/31#speed>

NOTE: To access these videos please create a FREE account at <http://www.ic-pro.org/en> Then, once you are logged in, you can click the link to view the video.

When riding off road, you'll also occasionally shift your hips back as you go over an obstacle in the road. We call this a Speed Bump. It's a lot like Wave Riding, except that you use a smaller range of motion and quicker repetition.

Let's stand for this entire song and pedal the entire time at about 55 rpm. The slower cadence will be helpful in learning this movement.

Maintain the Standing Climb position. For selected 32-count phrases on my cue, we'll perform 4 Speed Bumps, shifting our hips back for 1, bringing them back to center for 2, and then holding for 3-8.

The KitzAlpBike is Austria's largest mountain bike festival and offers five action-packed days for competitors and spectators. Timmelsjoch is a mountain pass that is included in this mountain-bike event. That's where we'll ride single track and practice Speed Bumps.

MOUNTAIN BIKE TOURING

Length: 5:36
Intensity: 3-4 RPE
Cadence: 80-100 RPM

Track 9 – Struggle For Pleasure by Wim Mertens (Partes Extra Partes) 5:36

Mountain Bike Touring is long distance touring on dirt roads with a mountain bike. With the popularity of the Great Divide Trail, the Colorado Trail and other long distance off-road biking trails, specially fitted mountain bikes are increasingly being used for touring. Though Mountain Bike Touring will encounter single track at times, most of it is done on fire roads (a dirt or gravel back road wide enough for a 4-wheel vehicle).

Focusing on freedom of travel and efficiency over varied surfaces, mountain bike touring is becoming very popular.

We're going to relax on this part of the ride. Imagine we're on a beautiful, flat fire road, riding through Germany. The ground is hard-packed dirt or grass.

Turn your pedals over at a comfortable cadence you would ride on a flat trail (about 80 rpm) and take the time to feel the flow and appreciate the green grass and trees.

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You may want to close your eyes from time to time to better visualize the outdoors.

MOUNTAIN BIKE WISDOM

Length: 3:45
Intensity: 3-4 RPE
Cadence: 60-100

Track 10 - Invincible (Instrumental) by Hedley (Ultimate Tribute Stars - I'm Flexin') 3:45

"Trust your bike. Let it flow. Enjoy the ride."

Catharine Pendrel - Canadian Mountain Bike Champ

All I want you to do for this track is make believe you're at 10,000 feet in the Swiss Alps with the Matterhorn in full view and ride your bike.

Song	Artist	BM or FS	RPM	Length
Ghost Dancer	Slovak Chamber Orchestra	FS	60-100	7:12
Mojave	Afro Celt SS	BM & FS	70-90	10:36
Black Horse and the Cherry Tree	KT Tunstall	BM	105	4:50
Going to California	Tribute Band Karaoke	BM	80	3:47
New Orleans is Sinking	The Tragically Hip	BM & FS	60-90	4:18
Revolve	His Boy Elroy	BM	75	4:41
Take Care	Drake	BM	65	4:37
Clubbed to Death	Escala	BM	55	4:55
Struggle For Pleasure	Wim Mertens	FS	80-100	5:36
Invincible	Hedley	FS	60-100	3:45