## **INTENSITY & HEART RATE ZONES**

ZONE	DESCRIPTION	APPROX. MAXIMUM DURATION IT COULD BE MAINTAINED	APPROX % OF MAXIMUM HEART RATE	RATE OF PERCIEVED EXERTION (RPE SCALE 1-10)
1	Active recovery	All day low intensity activity	50-60%	Easy <4.0
2	Aerobic endurance	All day moderate intensity activity	61-70%	Easy to moderate 4-5
3	Extended endurance / long race pace	Races lasting 3-5 hours (marathons, century bike races)	71-80%	Moderate 5-6
4	Low to mid-threshold	Races lasting 2 hours	81-85%	Moderate to hard 7-8
5	Mid to upper-threshold	Races lasting 1 hour	86-90%	Hard 8-8.5
6	Supra threshold	Races or intervals lasting 3-10 minutes	91-95%	Very hard 8.5-9
7	Max VO2 / anaerobic endurance	Intervals lasting less than a few minutes	95-100%	Near maximum to max >9

	WEEK 1: AEROBIC ENDURANCE BASE & SKILLS - APPROX. HOURS 6.5
MONDAY	SWIM: 100 easy warm-up. 6 x 50 (25 drill; 25 swim) Recovery Interval=5 seconds. 4 x 50 kick with board; fins optional. 3 x 50 kick on side with fins, alternating sides
	every 5 strokes. 200 easy cool-down. Total= 850 metres. Note: Drills = left arm only, right arm, catch-up. Repeat.
TUESDAY	RUN 30 min easy to moderate zone 1-2 run on mostly flat terrain.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.
WEDNESDAY	SWIM: 200 easy warm-up. 4 x 75 (25 swim; 25 drill; 25 swim). 2 x 50 easy kick with board; fins optional. 2 x 200 moderate pace; RI=15 seconds. 100 cool-down. Total
	= 1,100 metres. Note: drills = catch-up, zipper, fist, sculling. BIKE: 45-60 min easy zone 1-2 ride on spin, stationary or road bike. Focus on comfortably high cadence
	(approx. 95-105 rpm) while pedalling in smooth circles. Stretch well after.
THURSDAY	RUN: 25-35 min easy to moderate zone 1-2 run on mostly flat terrain. Count cadence (step cycles per minute) for reference.   15-20 minutes of stretching and core
	exercises.   Strength train or yoga option.
FRIDAY	SWIM: Time Trial (TT) to establish benchmark and 100-metre base pace. 100 easy warm-up. Swim 1,000 metres continuously. Note 500-metre split. Record time and
	divide by 10. This is your 100-metre base pace. 100 cool-down. Total = 1,200 metres.
SATURDAY	BIKE: 80-minute easy to moderate zone 1-2 effort on mostly flat to rolling terrain. Use gears to keep a steady 85-95 cadence.
SUNDAY	RUN: 50 minutes easy to moderate zone 1-2 effort on flat to rolling terrain. If possible on dirt or other soft surface.

	WEEK 2: AEROBIC ENDURANCE BASE & SKILLS - APPROX. HOURS 6
MONDAY	Complete Rest day - light stretching only.
TUESDAY	<b>RUN:</b> 30 min easy to moderate zone 1-2 run on mostly flat terrain. Include 4 x 100-metre strides at cadence slightly higher than base (from last week's cadence count). Stretch well after.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.
WEDNESDAY	<b>SWIM:</b> 300 easy warm-up. 6 x 50 (25 drill of choice; 25 swim). 2 x 50 easy to moderate kick with board; fins optional. 4 x 100 at base pace (from TT); RI = 10 seconds. Focus on long and strong pulls with good follow-thru at end of stroke. 100 easy cool-down with 50 metres of backstroke. Total = 1,200 metres.   <b>BIKE:</b> 50-60 minutes easy to moderate zone 1-2 effort. Include 10 minutes of comfortably high cadence.
THURSDAY	RUN: 35-45 min moderate zone 2-3 effort on hilly terrain.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.s.   Strength train or yoga option.s.   Strength train or yoga option.
FRIDAY	SWIM: 100 easy warm-up. Swim the following ladder starting each interval easy then building to base pace in the final 50. RI= 10-15 seconds. 100, 200, 300, 500. 100 easy cool-down with 50 metres of breast stroke. Total = 1,300 metres. by 10. This is your 100-metre base pace. 100 cool-down. Total = 1,200 metres.
SATURDAY	BIKE / RUN BRICK:60 minutes easy to moderate zone 1-2 effort followed by a quick transition and 20-minute run at easy to moderate zone 1-2 effort.
SUNDAY	RUN: 45 minutes easy to moderate zone 1-2 effort on flat to rolling terrain.

	WEEK 3: BUILD WEEK 1 APPROX 8 HOURS
MONDAY	<b>SWIM:</b> 200 easy warm-up. 4 x 75 (25 swim; 25 drill of choice; 25 alternate or IM stroke of choice); RI = 5-10 seconds. 3 x 200 on base pace; RI = 15 seconds. 200 easy cool-down. Total = 1,300 metres.   <b>BIKE:</b> 45 minutes easy spin zone 1-2 at comfortably high cadence (95+ rpm).
TUESDAY	<b>RUN:</b> Warm-up 15 minutes building from easy zone 1 to zone 2 for final 5 minutes. Jog 5 minutes easy then increase pace to threshold zone 3-4 effort for 20 minutes. 5 minutes easy jog cool-down.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.dence count). Stretch well after.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.
WEDNESDAY	<b>SWIM:</b> 300 easy warm-up. 100 kick with board. 6 x 100 at base pace: RI= 10 second. 100 metres alternate stroke (breast, back) on every other 25. 200 easy cool-down. Total = 1,300 metres.   <b>BIKE:</b> 50-60 minutes easy to moderate zone 1-2 effort. If on trainer, spin bike or stationary bike then include 5 minutes of one-legged spin drills alternating every 15-20 seconds.
THURSDAY	RUN: 45-50 min easy to moderate zone 1-2 effort on flat to rolling terrain.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.
FRIDAY	SWIM:1,400 reverse ladder: 500, 400, 300, 200. Allow 5-10 seconds rest between intervals. Swim each interval faster than the preceding. Final 100 in last interval is easy cool-down.   BIKE: 30 minutes easy zone 1 spin on trainer, spin, stationary, or road bike on mostly flat course. Maintain comfortably high cadence.
SATURDAY	BIKE: 1:45-2:00 moderate zone 2-3 effort on terrain similar to race course.
SUNDAY	RUN: 50 minutes easy to moderate zone 1-2 effort on rolling to hilly terrain. OK to increase to zone 3-4 on hills.

	WEEK 4: RECOVERY 1 APPROX HOURS 4.5
MONDAY	Complete rest day.
TUESDAY	RUN: 30 minutes easy zone 1 effort. Focus on good running form and turnover.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.
WEDNESDAY	SWIM: 100 easy warm-up. 8 x 75 (25 swim, 25 choice of drill, 25 back or breast); RI = 5 seconds. 4 x 50 kicking with fins and board. 2 x 100 pull buoys focusing on long glides; RI = 10 seconds. 200 easy cool-down. Total = 1,300 metres
THURSDAY	BIKE: 30-40 minutes easy zone 1 recovery spin on mostly flat terrain. Comfortably high cadence.
FRIDAY	SWIM: 1,000 ladder: 100, 200, 300, 400. Increase rest interval from 10 to 30 seconds as the swim intervals increase in length. Final 100 of the last interval is an easy cool down.
SATURDAY	SWIM / BIKE BRICK: Swim 1,000 metres in a continuous relaxed effort. Bike: 60 minutes easy zone 1 effort ride on mostly flat to gently rolling terrain. Higher than normal cadence.
SUNDAY	RUN: 45 minutes easy zone 1-2 effort on mostly flat to rolling terrain.

	WEEK 5 BUILD 2 RACE SPECIFIC APPROX HOURS 8
MONDAY	SWIM: 300 easy warm-up. 8 x 50 (25 drill of choice, 25 swim breathing on opposite side than normal). 3 x 50 easy kicking with board, fins. 3 x 150 on base pace; RI = 15
	seconds. 100 cool-down. Total = 1,400 metres.
TUESDAY	RUN: Warm-up 10 minutes building from easy zone 1 to zone 2 for final 5 minutes. Jog 5 minutes easy then increase pace to threshold zone 4-5 effort for 25 minutes. 5
	minutes easy jog cool-down.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.
WEDNESDAY	SWIM: 200 easy warm-up. 100 easy kick with board/fins. 4 x 75 (25 swim, 25 choice of drill, 25 IM or alternate stroke); RI = 5 seconds. 6 x 50 with paddles (small size)
	and buoy; RI = 10 seconds. 3 x 200 on base pace; RI = 15 seconds. 100 cool-down. Total = 1,600 metres.   BIKE: 50-60 minutes with 15-20 minutes at higher than normal
	cadence approx. 10 rpm higher than base.
THURSDAY	RUN: 45-50 minute easy to moderate zone 1-2 effort on flat to rolling terrain. Include 4 x 100 metre strides at slightly higher than normal cadence.   15-20 minutes of
	stretching and core exercises.   Strength train or yoga option.
FRIDAY	SWIM: 1,600 pyramid: 100, 200, 300, 400, 300, 200, 100. Goal is to swim the intervals on the backside faster than the front. Allow only 5-10 seconds rest between
	intervals. Final 100 is easy cool-down. Total = 1,600 metres. OR swim approx. 1,500 metres open water in wetsuit (if you plan to race in a wetsuit). Steady, comfortable
	effort.
SATURDAY	BIKE / RUN BRICK: Bike 90 minutes at moderate zone 1-2 effort for the first 45 minutes, then build to close to race effort (zone 3-4) for the next 30 minutes. Quick
	transition to run.   Run 30 minutes at moderate zone 2 effort.
SUNDAY	RUN: 65 minutes. Begin easy zone 1 then build to moderate zone 2-3 effort during final 30 minutes.

	WEEK 6 BUILD 3 (RACE SPECIFIC) APPROX. HOURS 8:5
MONDAY	Complete Rest Day.
TUESDAY	RUN: Warm-up 10 minutes building from easy zone 1 to zone 2 for final 5 minutes. Jog 5 minutes easy then increase pace to threshold zone 4-5 effort for 30 minutes. 5
	minutes easy jog cool-down.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.
WEDNESDAY	SWIM: 400 easy warm-up. 8 x 50 (25 choice of drill, 25 swim); RI= 5 seconds. 2 x 100 easy pull with paddles and buoy. 5 x 100 at base pace; RI = 10-12 seconds. 4 x 50
	kick moderate with board/fins. 100 cool-down. Total = 1,800 metres.   BIKE: 45 minutes on trainer, spin, stationary or road bike on rolling to hilly terrain. Build intensity
	as you reach the top of each hill. Select higher gears with lower cadence for 25 minutes if on trainer or if no hills are available. Maintain zone 2 effort on flats and zone 3
	4 on hills.
THURSDAY	RUN: 45-50 minutes easy to moderate zone 1-2 effort on mostly flat to gently rolling terrain. Include 5 x 100 metre strides at slightly higher than normal cadence.   15-
	20 minutes of stretching and core exercises.   Strength train or yoga option.
FRIDAY	SWIM: Time Trial #2 to check swim progress and establish new 100-metre base pace. 200 easy warm-up. Swim 1,000 metres continuously. Note 500-metre split. Record
	time and divide by 10. This is your 100-metre base pace. 300 easy cool-down. Total = 1,500 metres   BIKE: 30-45 minutes easy zone 1-2 effort. Include 3 x 4 minutes of
	high-cadence spinning (approx. 100-105 rpm).
SATURDAY	BIKE / RUN BRICK: Bike 40 kilometres on actual race course or similar terrain at moderate zone 2 effort for the first 25 kilometres. Then build to near race effort (zone 3-
	4) for the next 15 kilometres. <b>RUN:</b> 6 kilometres on mostly flat to rolling terrain at moderate zone 2 effort.
SUNDAY	RUN: 10-12 kilometres on race course or similar terrain. Start relaxed zone 1 effort then build to moderate zone 2-3 effort during final 30 minutes.   SWIM: 1,700
	pyramid: 50, 100, 200, 300, 400, 300, 200, 100, 50. Goal is to swim the intervals on the backside faster than the front. Allow only 5-10 seconds rest between intervals.
	Final 150 easy cool-down. Total = 1,700 metres.

	WEEK 7 BUILD (OVER DISTANCE) APPROX. HOURS 9
MONDAY	BIKE: 60 minutes easy spin at comfortably high cadence (95+ rpm).
TUESDAY	<b>RUN:</b> 15 minutes at moderate zone 1-2 effort. After warm-up, include 4 x 3-minute intervals at 5K race pace (zone 6 effort). 3-minute easy zone 1 jog/walk between intervals. 10-minute easy cool-down.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.
WEDNESDAY	<b>SWIM:</b> 200 easy warm-up. 8 x 50 (25 drill, 25 easy to moderate free). 5 x 50 easy pull with paddles and buoy. 8 x 100 on base pace; RI = 10 seconds. 6 x 50 kicking with fins, alternating sides every 5 metres. 100 easy cool-down with backstroke. Total = 2,050 metres.   <b>BIKE:</b> 45 minutes on trainer, spin, stationary or road bike on mostly flat terrain. Include 20 minutes at steady threshold zone 5 effort.
THURSDAY	RUN: 50 minutes at moderate zone 2 effort on flat to rolling terrain.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.
FRIDAY	SWIM: Double ladder: 100, 100, 200, 200, 300, 300, 400, 400. Steady comfortable effort with only 3-5 seconds rest between intervals. 100 easy cool-down. Total: 2,000 metres.
SATURDAY	BIKE: Ride approx. 60-70 kilometres easy to moderate zone 1-2 effort.
SUNDAY	RUN: 12-15 kilometres at steady, easy to moderate zone 1-2 effort.

	WEEK 8 RECOVERY 2   APPROX. HOURS 5
MONDAY	Complete Rest Day.
TUESDAY	RUN: 30 minutes easy zone 1 effort.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.
WEDNESDAY	SWIM: 200 easy. 8 x 50 (25 drill, 25 swim); RI= 3 seconds. 2 x 50 easy to moderate kick with fins, board; RI = 3 seconds. 4 x 50 pull with buoy and paddles. 200 easy cool-
	down. Total = 1,100 metres.
THURSDAY	BIKE: 40 minutes easy zone 1 recovery spin on trainer, spin, stationary or road bike on mostly flat terrain. Comfortably high cadence.   15-20 minutes of stretching and
	core exercises.   Strength train or yoga option.
FRIDAY	SWIM: 1,450 Pyramid: 100, 150, 200, 250, 300, 200, 150, 100. Steady relaxed effort; RI = 10 seconds. Total = 1,450 metres.
SATURDAY	BIKE: 90 minutes easy zone 1-2 on mostly flat to gently rolling terrain.
SUNDAY	RUN: 45 minutes easy zone 1-2 effort on mostly flat to rolling terrain.

	WEEK 9 BUILD 5 (RACE SPECIFIC)   APPROX. HOURS 9.5
MONDAY	SWIM: 300 easy warm-up. 6 x 75 (25 bilateral breathing, 25 drill of choice, 25 swim); RI = 5 seconds. 3 x 50 easy kicking with board, fins. 5 x 200 on base pace; RI = 15 seconds. 200 cool-down. Total = 2,100 metres.
TUESDAY	<b>RUN:</b> Warm up 10 minutes building from easy zone 1 to zone 2 for final 5 minutes. Jog 5 minutes easy, then do 2 x 17-minute threshold-pace intervals at zone 4 to 5 effort. 3-minute easy jog recovery between intervals. 5-minute easy jog cool-down.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.
WEDNESDAY	SWIM: 200 easy warm-up. 8 x 50 (25 drill, 25 easy to moderate free). 5 x 50 (25 alternate stroke, 25 moderate free). 5 x 200 on base pace; RI = 15 seconds. 6 x 50 moderate kicking with board/fins. 100 cool-down. Total = 2,250 metres.   BIKE: 45 minutes on trainer, spin, stationary or road bike on mostly flat terrain. Include 2 x 12-minute intervals at steady threshold zone 5 effort. 2-minute easy zone 1 recovery spin between the intervals.
THURSDAY	<b>RUN:</b> 40 minutes easy zone 1 recovery spin on trainer, spin, stationary or road bike on mostly flat terrain. Comfortably high cadence.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.
FRIDAY	COMPLETE REST DAY.
SATURDAY	SWIM / BIKE / RUN SIMULATIONPractice pre-race breakfast at least 2-3 hours before start of training. Swim approx. one mile continuously in pool or open water. Start slow and build to what feels like race effort for the final 800 metres. Ride 40 kilometres on race course or similar terrain. Start at a comfortable zone 2 pace, spinning at a slightly faster than normal cadence for the first 20 kilometres. Then increase to target race pace (zone 4-5 effort) for the next 20 kilometres. Run 7 kilometres on race course or similar terrain. Comfortable zone 2 effort for the first 3.5 kilometres, then increase to target race pace (zone 4-5) for the final 3.5 kilometres.
SUNDAY	<b>RUN:</b> Approx. 11 kilometres on flat to gently rolling course similar to race course. Build pace as you go. 20 minutes easy zone 1, 20 minutes moderate zone 2, 20 minutes faster zone 3-4.

	WEEK 10 PEAK 1   APPROX. HOURS: 9.5
MONDAY	Complete Rest Day.
TUESDAY	RUN: 15-minute warm-up building to zone 3 effort during final 5 minutes. Run 4 x 100 metre strides at slightly higher than normal cadence. Then perform 6 x 4-minute
	intervals at near 5K race pace (zone 5-6 effort). 3-minute easy jog/walk recovery between intervals. 5-minute easy cool-down.   15-20 minutes of stretching and core
	exercises.   Strength train or yoga option.
WEDNESDAY	SWIM: 300 easy. 4 x 50 kick with board (fins optional). 4 x 200s at base pace, 20 seconds rest between intervals. 6 x 100 at base pace with 10-12 seconds rest between
	intervals. 200 easy cool-down with back and breast stroke. Total = 2,100 metres.   BIKE: 45 minutes on trainer, spin, stationary or road bike on mostly flat terrain.
	Include 3 x 10-minute intervals at steady zone 5 effort. 2-minute easy zone 1 recovery spin between intervals.
THURSDAY	RUN: 50 minutes moderate zone 2-3 effort on mostly flat to gently rolling terrain.   15-20 minutes of stretching and core exercises.   Strength train or yoga option
FRIDAY	SWIM: 200 easy warm-up. Swim 2,400 metres in the following pyramid: 200, 400, 600, 600, 400, 200. Easy relaxed effort on all intervals. 100 cool-down. Total = 2,700
	metres.
SATURDAY	BIKE / RUN BRICK: Ride 50 kilometres on terrain similar to race course. Start at a comfortable zone 2 pace, spinning at a slightly faster than normal cadence for the first
	20 kilometres. Then increase to target race pace (zone 4-5 effort) for the next 30 kilometres. Run 7 kilometres on race course or similar terrain. Comfortable zone 2
	effort for the first 2 kilometres, then increase to target race pace (zone 5) for the final 5 kilometres
SUNDAY	OPEN WATER SWIM:Swim approx. 1,800 metres open water in wetsuit (if you plan to race in a wetsuit). Steady, comfortable and strong effort, building to race effort
	during final 20 minutes.   RUN: Approx. 12 kilometres on flat to gently rolling course similar to race course. Build pace as you go. 10 minutes easy zone 1, 20 minutes
	moderate zone 2, 30 minutes faster zone 3-4.

	WEEK 11 PEAK 2   APPROX. HOURS: 8.5
MONDAY	SWIM: 300 easy warm-up. 6 x 75 (25 swim, 25 choice of drill, 25 swim with bilateral breathing). 3 x 50 easy pulling with paddles and buoy. 6 x 200 on base pace; RI = 15 seconds. 200 easy cool-down.Total = 2,300 metres.
TUESDAY	<b>RUN:</b> Warm up 10 minutes building from easy zone 1 to zone 2 for final 5 minutes. Jog 5 minutes easy, then do 3 x 12-minute threshold pace intervals at zone 5 effort. 2-minute easy jog recovery between intervals. 5-minute easy jog cool-down.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.
WEDNESDAY	<b>SWIM:</b> 300 easy warm-up. 3 x 50 (25 drill, 25 swim). 4 x 50 (25 alternate stroke, 25 moderate swim). 4 x 300 building: 100 easy, 100 moderate, 100 fast; RI = 15 seconds. 6 x 50, sprint final 25; RI = 20 seconds. 150 cool-down with backstroke. Total = 2,300 metres.   <b>BIKE:</b> 45 minutes with 30 minutes at race effort. Stay in low, aerodynamic position.
THURSDAY	RUN: 45 minutes easy to moderate effort on flat to rolling terrain.   15-20 minutes of stretching and core exercises.   Strength train or yoga option.
FRIDAY	BIKE: 30-minute easy zone 1-2 effort spin. Include 3 x 3 minutes of high-cadence spinning (approx. 100-105 rpm).
SATURDAY	SWIM / BIKE / RUN SIMULATION 2Swim approx. 1,000 metres continuously in pool or open water at race effort. Ride 30 kilometres on race course or similar terrain. Start at a comfortable zone 2 pace, spinning at a slightly higher than normal cadence for the first 15 kilometres. Then increase to target race pace (zone 4-5 effort) for the next 15 kilometres. Run 7 kilometres on race course or similar terrain. Comfortable zone 2 effort for the first 5 kilometres, then increase to target race pace (zone 4-5 5) for the final 2 kilometres.
SUNDAY	RUN: 60 minutes. Build pace as you go. 10 minutes easy zone 1, 30 minutes moderate zone 2, 20 minutes at target race pace (zone 4-5).

WEEK 12 WEEK TAPER   APPROX. HOURS: 3.5	
MONDAY	SWIM: 200 easy warm-up. 4 x 75 (25 swim, 25 with sighting practice, 25 swim opposite-side breathing). 2 x 50 easy pulling with buoy (no paddles). 6 x 100 on base
	pace; RI = 15 seconds. 100 easy cool-down. Total = 1,300 metres. BIKE: 30 minutes easy spin at comfortably high cadence (90+ rpm).
TUESDAY	RUN: 30 minutes with 6 x 1-minute pick-ups at what feels like race zone 4-5 effort. Allow 2-3 minutes between pick-ups.   15-20 minutes of stretching and core
	exercises.   Strength train (reduce weight/resistance by 30-50 percent today) or yoga option.
WEDNESDAY	SWIM: 200 easy warm-up. 2 x 200 building (100 easy, 100 moderate); RI= 20 seconds. 6 x 50 fast; RI= 15 seconds. 100 easy cool-down. Total = 1,000 metres   BIKE:
	30 minutes. Include 6 x 1-minute pick-ups at race zone 4-5 effort. Allow 2-3 minutes between pick-ups.
THURSDAY	BIKE: 15-20-minute easy effort.   15-20 minutes of stretching and core exercises.
FRIDAY	COMPLETE REST DAY: Light strecthing and core exercises only.   Note: If your race day is Saturday, then do Thursday's workout today and move this rest day to
	Thursday.
SATURDAY	RUN: 8 minutes easy. Include 3 x 30-second pick-ups at what feels like race effort.   BIKE: 10 minutes easy.   SWIM: 7 minutes easy.
SUNDAY	RACE DAY!!!!